

Math

Primary 3

First Term

سعر المذكرة وعليها بياناتك فقط ، ٦ جنيها
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 الواتس وتوجد جميع المراحل حساب وماث



Math

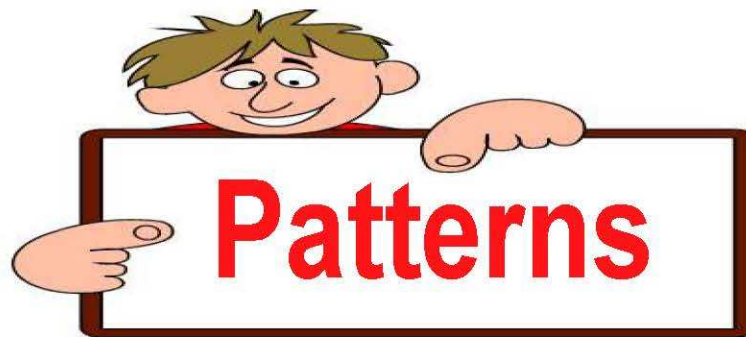
Primary 3

First Term



Chapter 1

Lessons 1



Pattern

It is something that follows a rule while repeating.

Types of pattern :

① Number pattern :

It is a series of numbers follows a rule while repeating.

② Shape or visual pattern :

It is a series of shapes follows a rule while repeating.

①

Number pattern :

Exercise ①

A -) 5, 10, 15, 20, 25, Pattern : + 5

B -) 10, 20, 30, 40, 50, Pattern : + 10

C -) 30, 27, 24, 21, 18, Pattern : - 3

Exercises

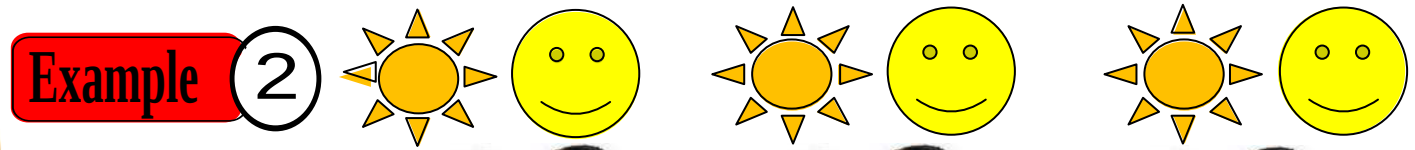
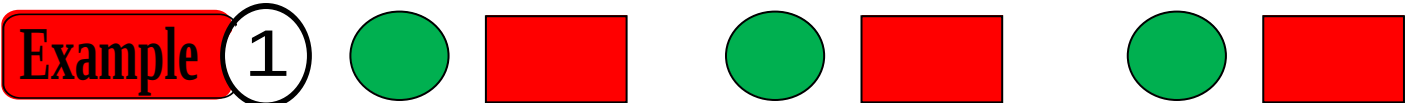
Exercise

1

Notice and complete :

- 1 -) 3, 5, 7, 9, Pattern
- 2 -) 0, 4, 8, 12, Pattern
- 3 -) 21, 121, 221, 321, Pattern
- 4 -) 135, 145, 155, Pattern
- 5 -) 136, 134, 132, 130, 128, Pattern
- 6 -) 100, 110, 120, 130, Pattern
- 7 -) 101, 121, 241, 361, Pattern
- 8 -) 110, 220, 330, Pattern
- 5 -) 50, 45, 40, 35, 30, Pattern
- 6 -) 12, 15, 18, 21, Pattern
- 7 -) 109, 129, 249, 369, Pattern
- 8 -) 111, 221, 331, Pattern
- 8 -) 108,, 308,, 408, Pattern

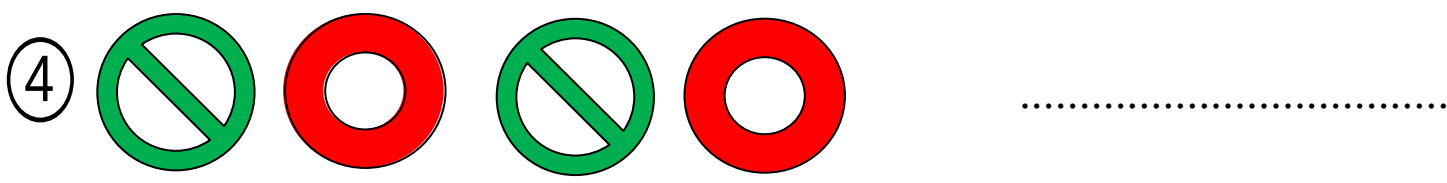
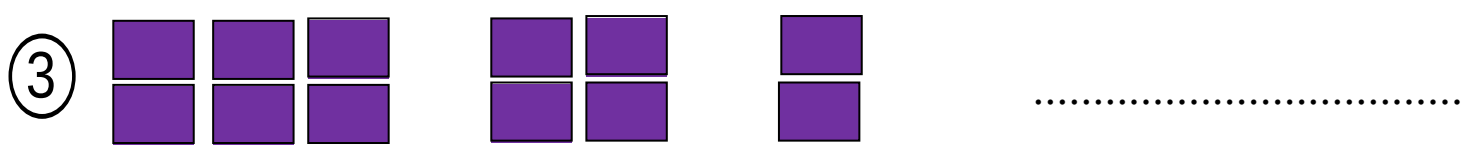
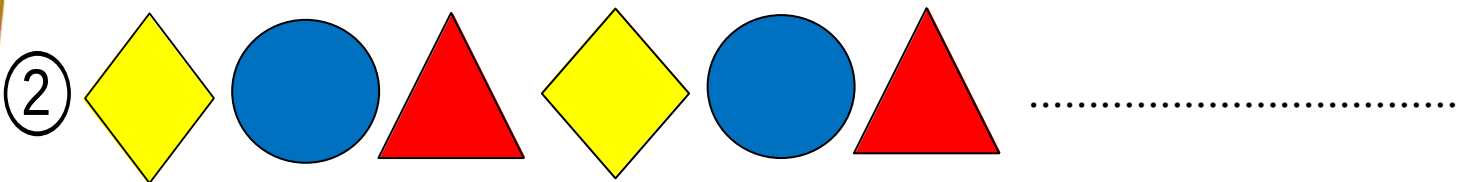
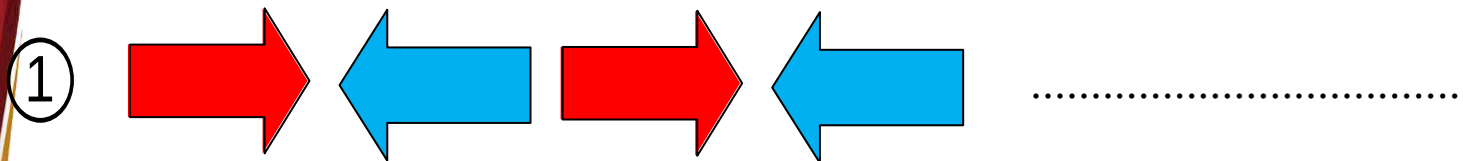
2 Shape or visual pattern :



Exercise

1

Notice and complete :



Exercise

2

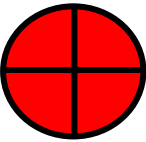
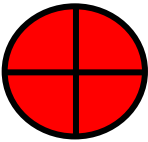
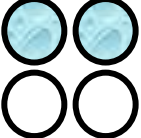
Notice and complete :

- 1 -) 11, 22, 33, 44,
- 2 -) 110, 220, 330,
- 3 -) AB, ABB, ABBB,
- 4 -) 18, 15, 12,
- 5 -) 15,, 71,, 91,

Exercise

3

Notice and complete :

- ①     
- ②     
- ③   

Exercise

4

Imagine and draw 3 patterns :

.....

.....

.....

Lessons 2



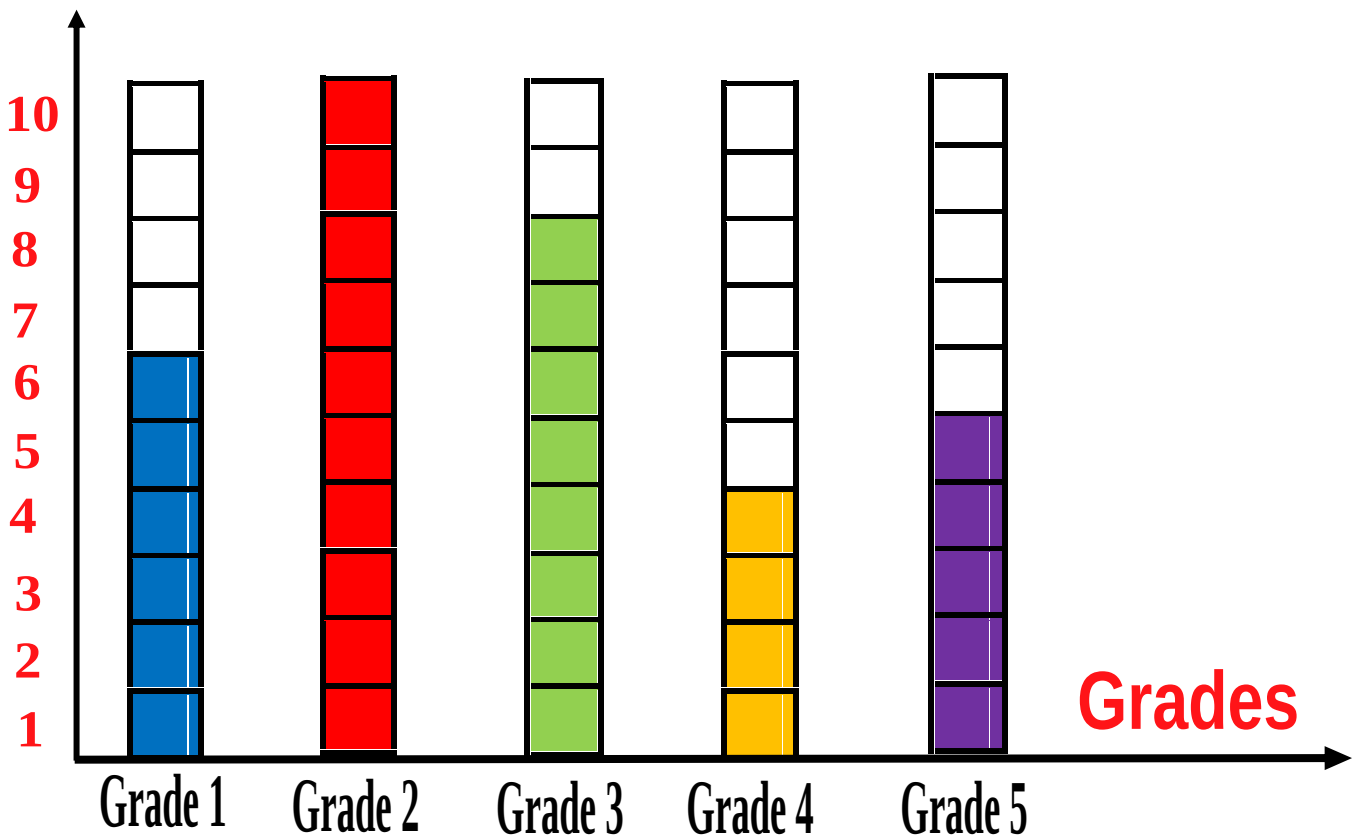
Bar graph :

It is a chart uses bars or columns to show the collected data.

Example

The table shows the data of the first 5-grades of students born in June :

Grades	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Students number	6	10	8	4	5



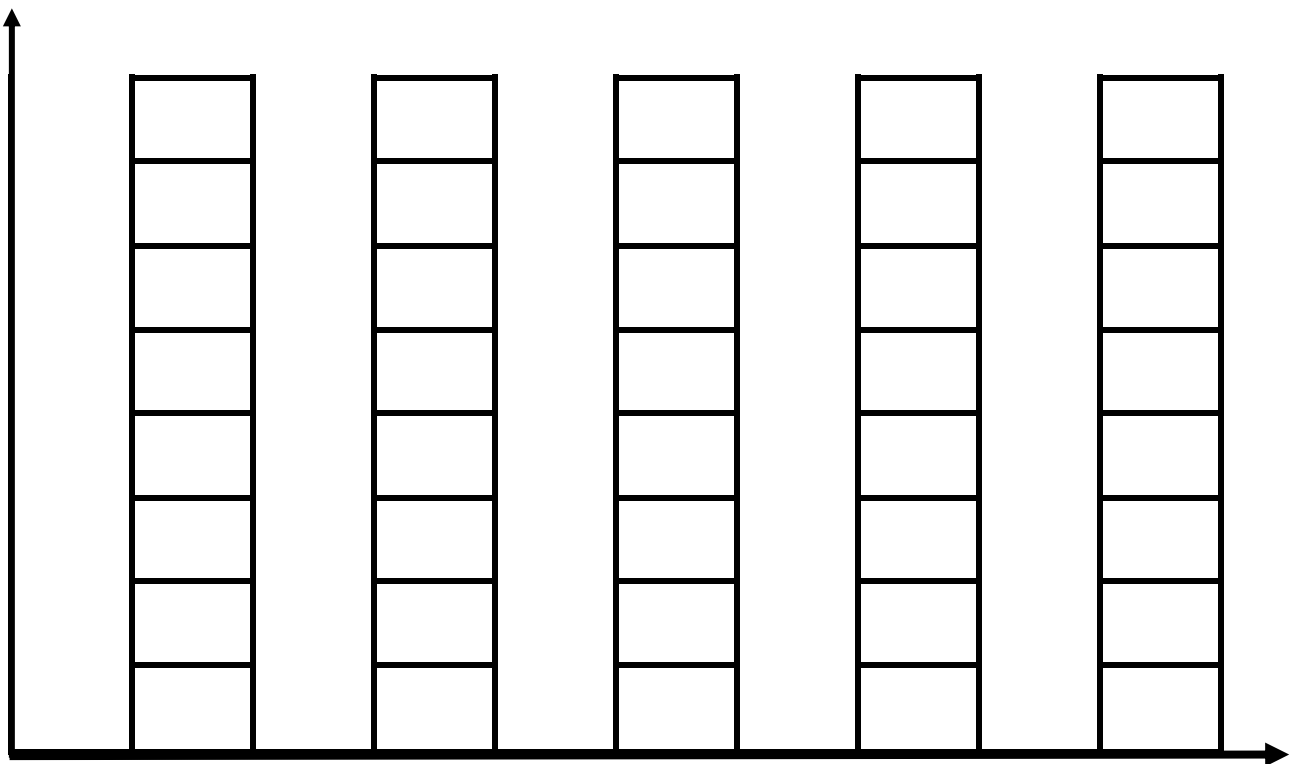
Exercise

1

Notice and complete the bar graph :

This table shows students favourite sports ;

Favourite sport	Basketball	Football	Swimming	Volleyball	Tennis
Students number	150	300	200	50	80



Read and answer :

- 1 -) What is the most favourite sport ?
- 2 -) How many students like football and tennis all together ?
- 3 -) How many students like swimming and volleyball all together ?

Exercise

2

Notice and complete the bar graph :

⚽ This table shows goals scored by some footballers. Notice, complete the bar graph and answer :

Footballer	Salah	Treka	Sheka	Kahraba	Ramadan
Goals	9	7	2	4	6

Title :



Footballer

⚽ Read and answer :

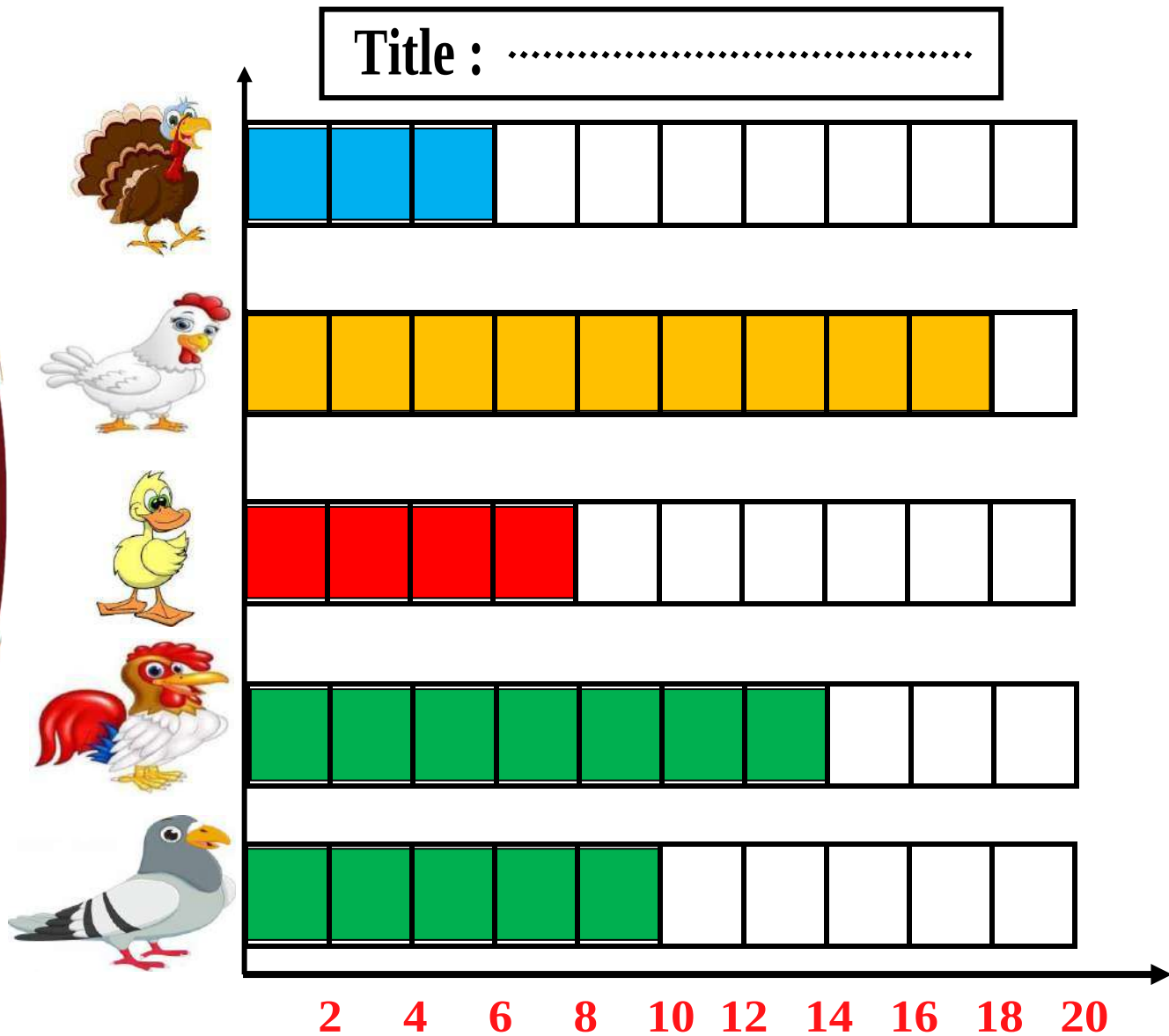
- 1 -) Who are the footballer scored more than 5 goals ?
- 2 -) How many goals Salah and Treka scored all together ?
- 3 -) Who is the footballer scored many goals ?

Exercise

3

Notice the bar graph and answer :

This bar graph shows how many birds inside a farm :



Read and answer :

- 1 -) How many birds all together in the farm ?
- 2 -) How many ducks and hens all together ?
- 3 -) The difference in number between hens and ducks ?

Exercise

3

Notice the bar graph and answer :

A teacher recorded students' favorite fruits on the bar graph.
Use the graph to answer the following questions :

Fruit					
Students number	150	200	.....	50	75



Read and answer :

- 1 -) What is the most favourite kind of fruit ?
- 2 -) How many students like apple and orange all together ?
- 3 -) The difference in number between students like apple and strawberry ?
- 4 -) How many students like all kinds of mentioned fruits ?



Number of students like some fruits :

Fruit					
Students number	6	5	8	9	2



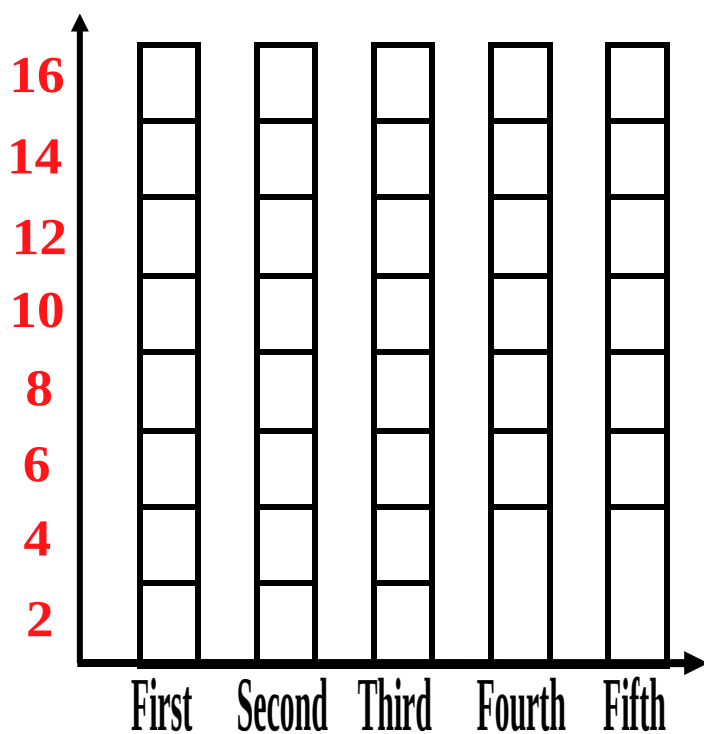
We can represent the previous table in this way :

Fruit					
Students number	/ ###	###	/// ###	//// ###	//

Exercise

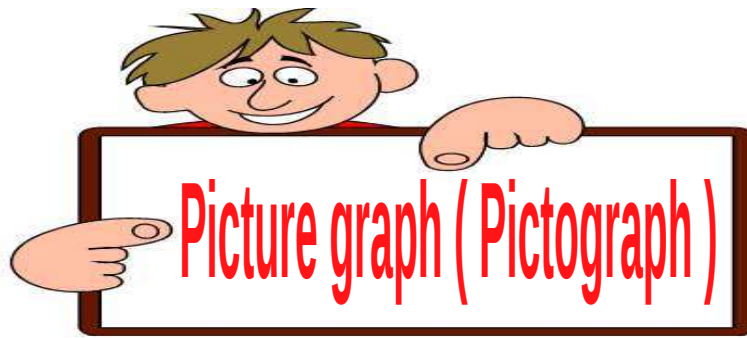
4

Notice the bar graph and answer :



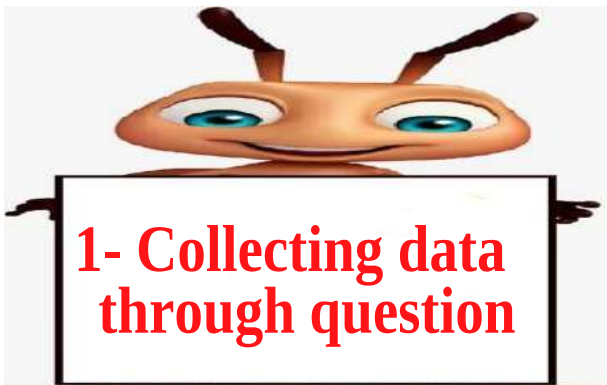
Student	Biscuits
First	//// 4
Second	###
Third	### ###
Fourth	//// ###
Fifth	/// ###

Lessons 3

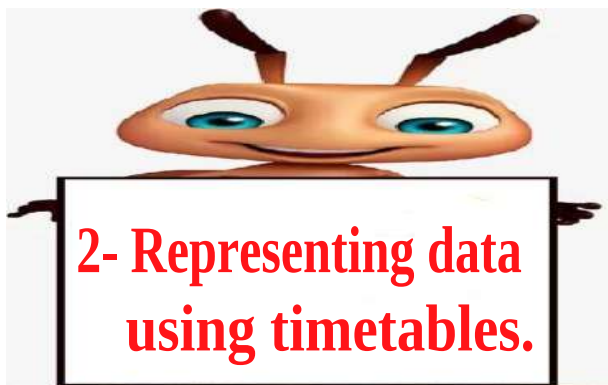


Pictograph :

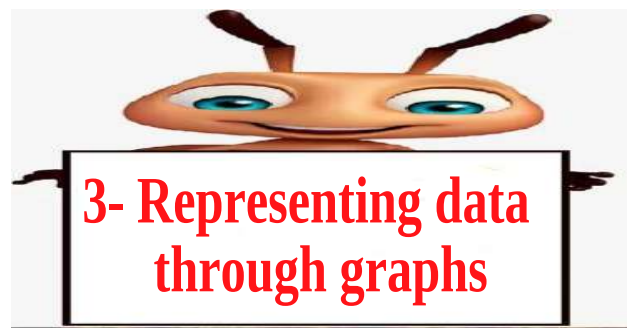
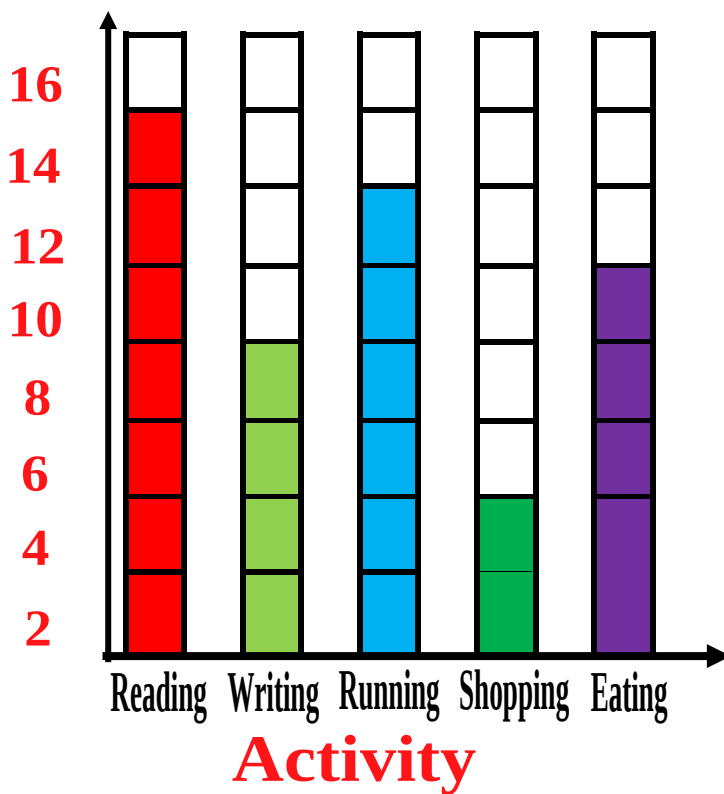
It is the representation of data using symbols or images to represent statistical data.



Hagar asked her friends about their favourite activities. She collected the data and made this timetable.



Activity	Students
Reading	### ### ///
Writing	### ///
Running	### ### //
Shopping	////
Eating	### ###



Help Hagar to answer these questions :

1 -) What is the most favourite activity ?

2 -) How many students like reading and eating ?

.....

3 -) How many students like writing and shopping ?

.....

4 -) The difference in numbers between students like writing and shopping ?

.....

5 -) How many students like all activities ?

.....

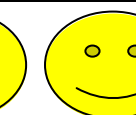
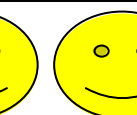
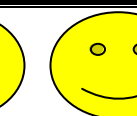
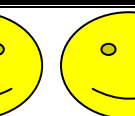
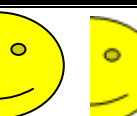
Exercise

1

Notice and answer :



Use the data of some students about their favourite way to go to school to answer :

Activity	Students	
Walking	    	### ###
Bike	  	
Car	     	
Bus	     	



= 1 student



= 2 students

- 1 -) How many students go by car ?
- 2 -) How many students go by car and bus all together ?
- 3 -) How many students go by bike and car all together ?
- 4 -) The difference in numbers between students go by car and bus ?
.....

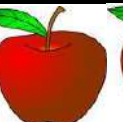
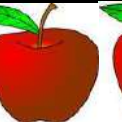
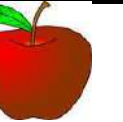
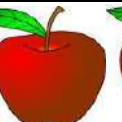
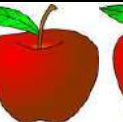
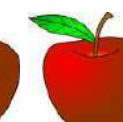
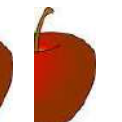
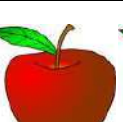
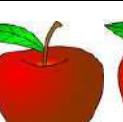
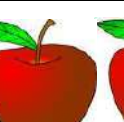
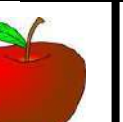
Exercise

2

Notice and answer :



Use the data of some farmers about their harvest of apples to answer :

Farmer	Apples	Number
Hassan	    	
Amr	     	
Omar	   	
Mahmoud	     	
Amer	      	



= 50 apples



= 100 apples

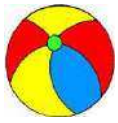
- 1 -) How many apples with Amer ?
- 2 -) How many apples Hassan and Amr have all together ?
- 3 -) How many apples all farmers have all together ?
- 4 -) The difference in numbers between Amer and Amr ?

.....

Exercise

3

Notice and complete :

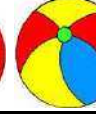
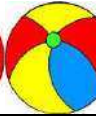
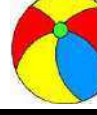
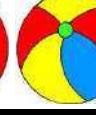
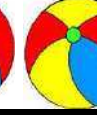


Use the data of some Basketball players goals to answer :

Name	Goals
Ayman	
Ahmed	
Barakat	
Tarek	



= 3 points

Name	Goals
Ayman	     
Ahmed	 
Barakat	   
Tarek	  

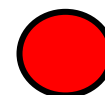
Exercise

4

Notice and complete :

Activity	points
Reading	
Writing	
Running	
Shopping	 

Activity	points
Reading	### ###
Writing	### //
Running	###
Shopping	///



= 2 students

Exercise

5

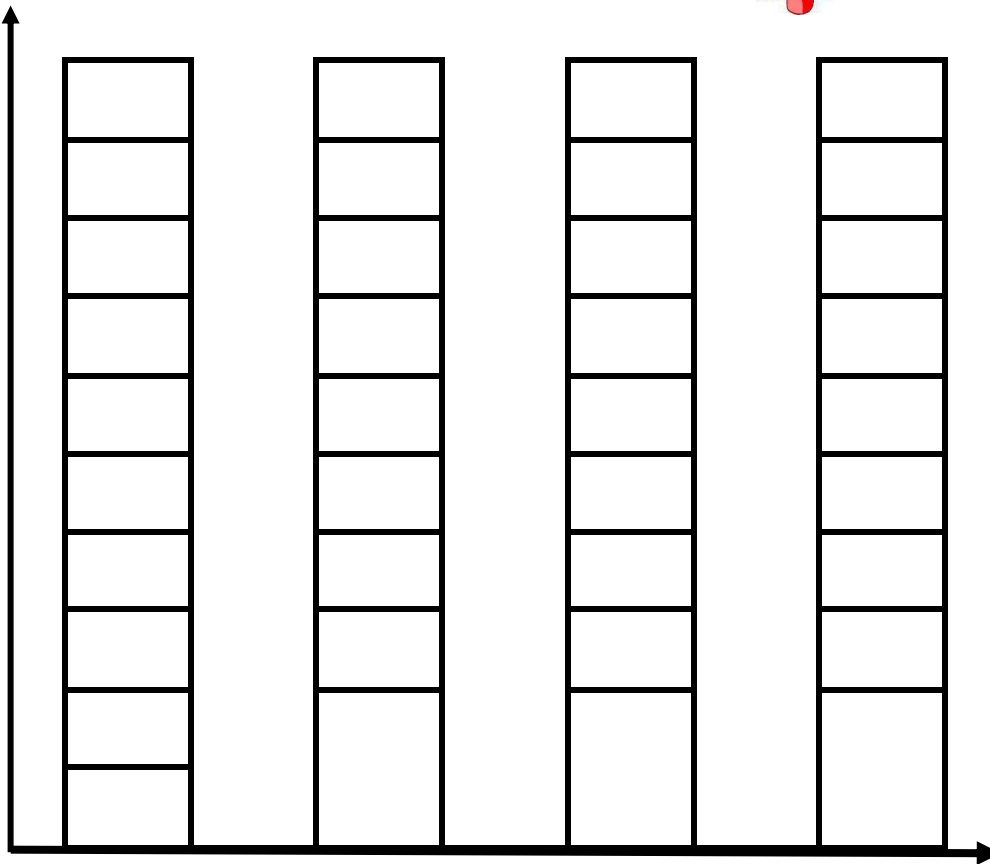
Notice and complete :

This table shows how many flowers Soha pick. Use the data to make a bar graph and a pictograph :

Day	Flowers
First	
Second	
Third	
Fourth	

Day	Flowers
First	30
Second	20
Third	35
Fourth	15

 = 5 Flowers



Lessons 4



Line plots



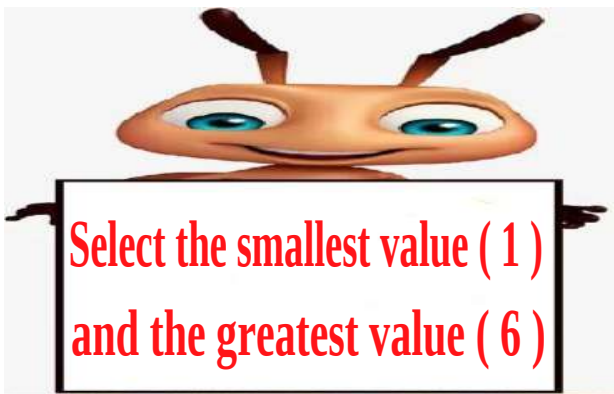
Line plots :

It uses a number line to show how often something happens.

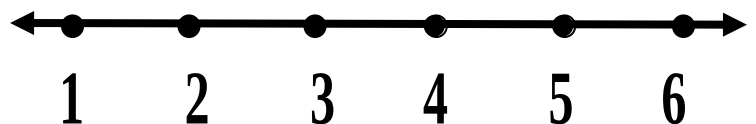
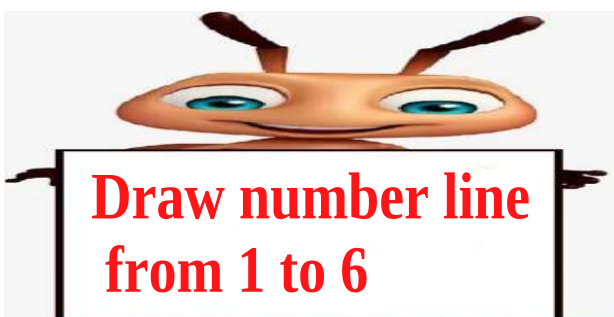


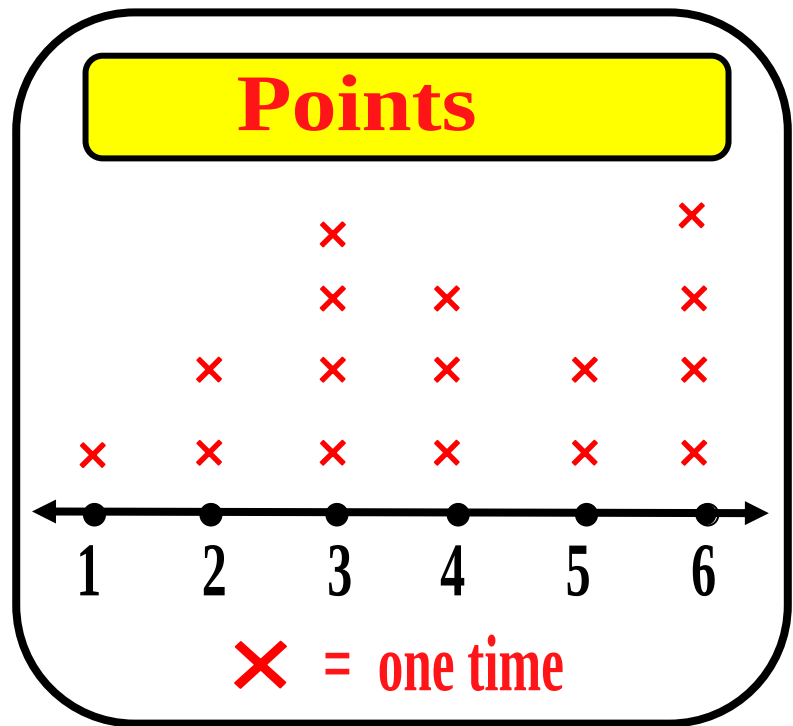
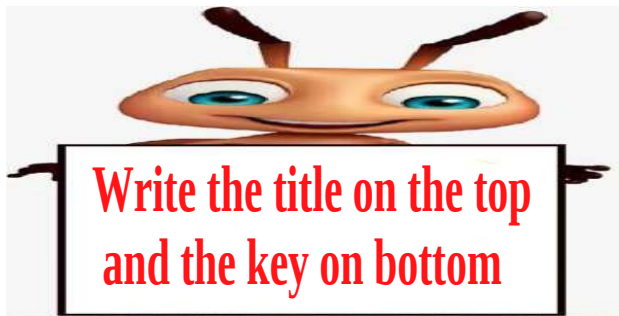
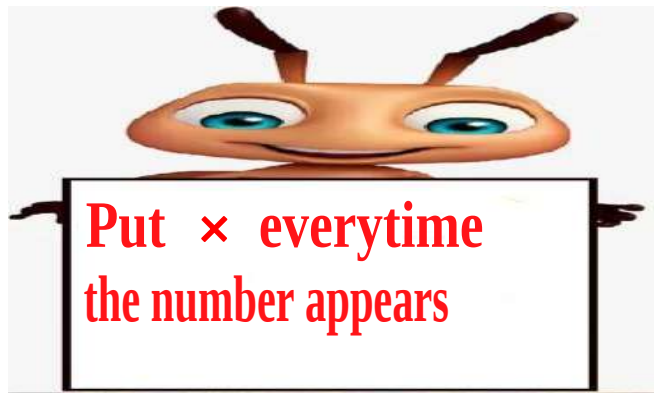
Hassan kicked the ball 16 times and scored these goals.

Representing the data using line plots :



Points			
3	5	6	4
6	3	4	5
1	3	5	2
4	2	3	6



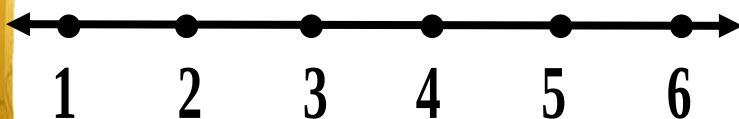


Exercise

1

Read, notice and complete :

Ahmed sent invitations to his friends to his birthday party. his parents wrote numbers of every family. Use the data to draw line plot.



Numbers of every family			
4	5	6	5
3	5	4	6
5	3	5	3
4	2	3	6

Exercise

2

Read, notice and complete :

A teacher recorded the weights of some students. Use the data to draw a line plot and to answer the questions :

45	44	43	40	46	47
44	46	42	40	42	43
40	43	46	45	42	45
43	45	46	47	44	44



- 1 -) How many students weigh 40 ?
- 2 -) How many students weigh 45 and 44 all together ?
- 3 -) Write the a title ?
- 4 -) Draw the line plot ?

.....



Exercise

3

Read, notice and complete :

A teacher recorded the tall of some students. Use the data to draw a line plot and to answer the questions :

120	123	125	127	124	130
121	125	124	123	127	122
129	128	127	126	124	125
130	129	121	127	123	128



- 1 -) How many students their tall 130 ?
- 2 -) How many students their tall 125 and 123 all together ?
- 3 -) Write the a title ?
- 4 -) Draw the line plot ?

.....



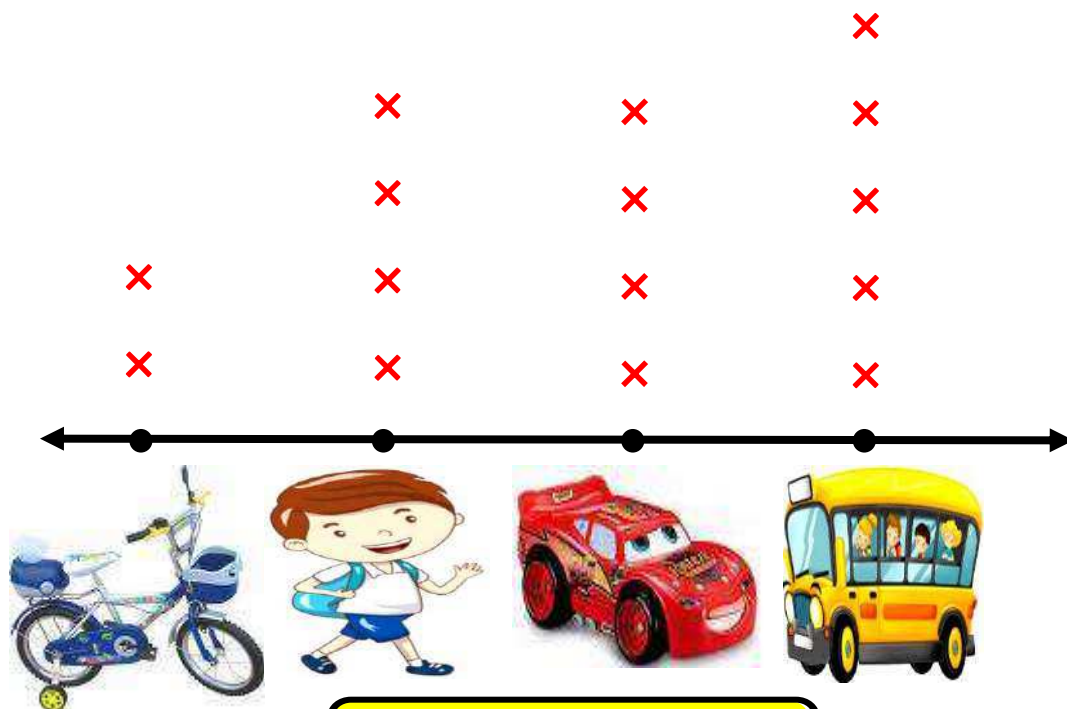
Exercise

4

Read, notice and complete :

A teacher recorded the way of some students using to go to school. Use the data to answer :

Transportation



X = 5 students

- 1 -) What is the most favourite way to go to school ?
- 2 -) How many students go to school by bus ?
- 3 -) How many students go to school by bus ?
- 4 -) The difference in numbers between students go to school by bus and by bike ?
.....

Exercise

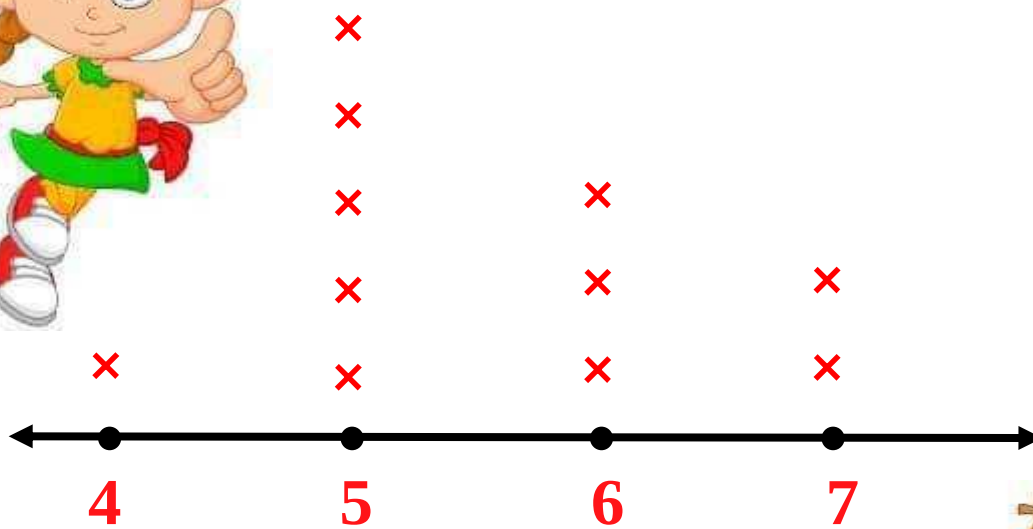
5

Hanaa made a line plot to the tall of her dolls:

Notice the line plot to answer :



Dolls' tall



x = 1 doll



- 1 -) How many dolls that tall 5 ?
- 2 -) How many dolls that tall 7 ?
- 3 -) There are 3 dolls that tall =
- 4 -) How many dolls that Hanaa has ?

.....

Lessons 5

Measuring unit



Measuring length



1 Meter = 100 centimeters (cm)

1 centimeter = 10 millimeters (mm)

1 Meter = 1000 millimeters (mm)

Ruler is a measuring length unit

Exercises

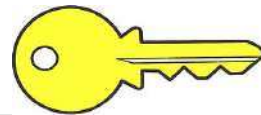
Exercise

1

Complete using the ruler :



..... cm



..... cm



..... cm



..... cm



Exercise

2

Complete using the ruler :



= cm



= cm



= cm



= cm



= cm

Exercise

3

Draw a line according to the given length using the ruler :

3 centimeters

5 centimeters

7 centimeters

Exercise

4

Read, notice and complete :



= cm



= cm



= cm

Lessons 6



Length
estimating

Is to find a value that is close enough to the right answer

Exercise

1

Complete using estimating :



= about cm



= about cm



= about cm



= about cm



= about cm

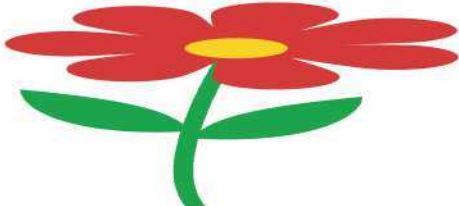


= about cm

Exercise

2

Choose the correct length measurement unit :

IMAGES	METERS OR CENTIMETERS?
	
	
	
	
	
	

Exercise

3

Complete as in the example :

$$9 \text{ meters} = 900 \text{ cm}$$

$$30 \text{ millimeters} = 3 \text{ cm}$$

1 -) 5 meters = cm

7 -) 200 mm = cm

2 -) 7 meters =cm

8 -) 700 mm =cm

3 -) 4 meters = cm

9 -) 400 mm = cm

4 -) meters = 200 cm

10 -) mm = 9 cm

5 -) meters = 400 cm

11 -) mm = 1 cm

6 -) meters = 900 cm

12 -) mm = 5 cm

Exercise

4

Read and complete :

1 -) 5 meters + 10 centimeters = + = centimeters.

2 -) 7 meters + 90 centimeters = + = centimeters.

3 -) 9 meters + 45 centimeters = + = centimeters.

4 -) 2 meters + 78 centimeters = + = centimeters.

5 -) meters + centimeters = 600 + 26 = centimeters.

6 -) meters + centimeters = 800 + 12 = centimeters.

7 -) meters + centimeters = 500 + 45 = centimeters.

Exercise

5

Choose the correct length measurement unit :



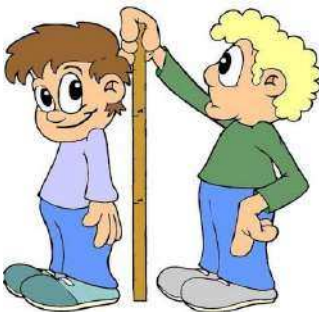
Meter / Centimeter



Meter / Centimeter



Meter / Centimeter



Meter / Centimeter



Meter / Centimeter



Meter / Centimeter



Meter / Centimeter



Meter / Centimeter

Lessons 7



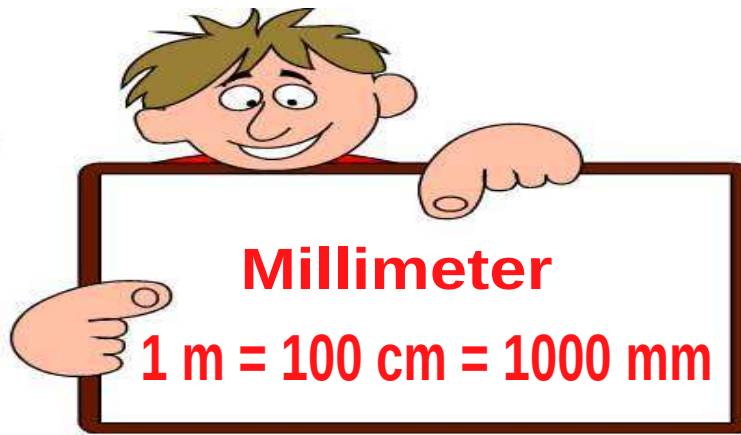
Asmaa recorded the tall of some pencils. Use the data to draw line point :

7	13	10	9	8	9	7	13	7
8	13	9	11	9	7	14	14	13
11	12	9	7	8	8	13	9	10
11	13	11	11	9	9	8	10	7

Number	point



Lessons 8 - 10



Exercises

Exercise

1

Read and complete :

- 1 -) 100 centimeters + 1000 millimeters = + = meter.
- 2 -) 900 centimeters + 2000 millimeters = + = meter.
- 3 -) 400 centimeters + 3000 millimeters = + = meter.
- 4 -) 700 centimeters + 5000 millimeters = + = meter.
- 5 -) centimeters + millimeters = 600 + 2000 = meter.
- 6 -) centimeters + millimeters = 800 + 1000 = meter.
- 7 -) centimeters + millimeters = 500 + 4000 = meter.
- 8 -) centimeters + millimeters = 100 + 5000 = meter.
- 9 -) centimeters + millimeters = 900 + 8000 = meter.

Exercise

2

Read and complete using

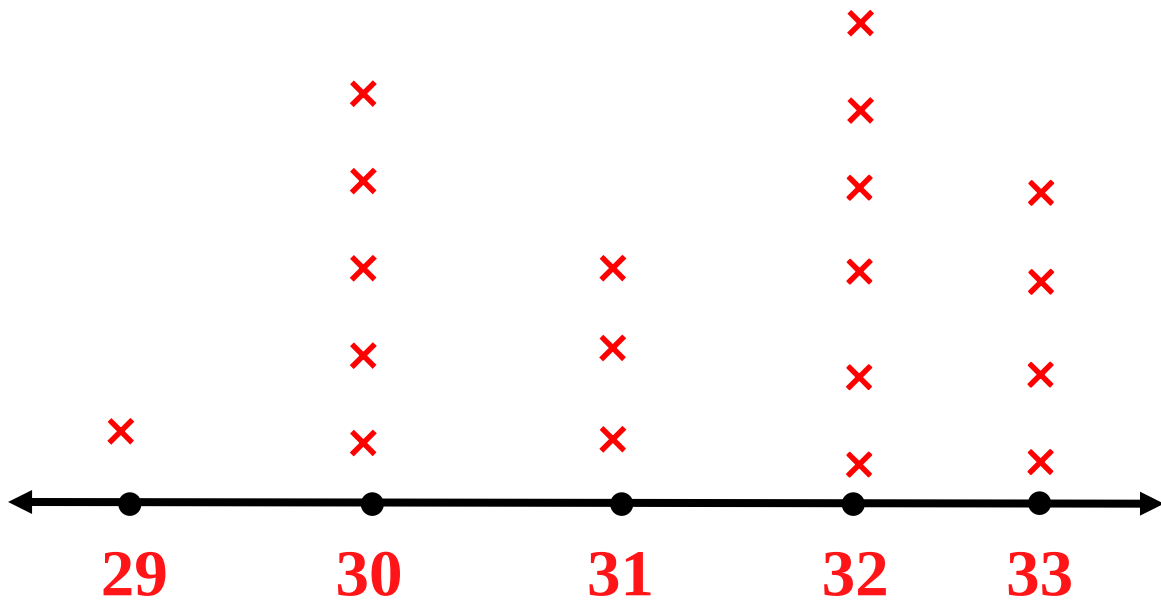


1 -) 5 meters		500 millimeters
2 -) 7 meters		900 centimeters
3 -) 4 meters		300 centimeters
4 -) 3 meters		200 millimeters
5 -) 3 meters		458 centimeters
6 -) 3 meters		141 centimeters
7 -) 3 meters		999 millimeters
8 -) 3 meters		932 centimeters
9 -) 3 meters		458 millimeters
10 -) 100 millimeters		9 meters
11 -) 941 centimeters		1 meters
12 -) 418 centimeters		6 meters
13 -) 273 millimeters		8 meters
14 -) 372 centimeters		7 meters
15 -) 212 millimeters		2 meters

Exercise

3

The point line shows the number of students studying Maths on four days . Use the data to answer



1 -) How many students study math on the first day ?

.....

2 -) How many students study math on the fourth day ?

.....

3 -) How many students study math on all four days ?

.....

4 -) The difference in numbers between students study maths on the last and first day ?

.....

Chapter 2

Lessons 11 & 12



A number can have many digits and each digit has a special place and value. Starting from the right the first digit will be at **ones** place, the second digit at **tens** place, the third digit at **hundreds** place and the third digit at **thousands** place .

Thousands	Hundreds	Tens	Ones
1	0	0	0

► A place-value chart can help explain what this number means.

thousands	hundreds	tens	ones
2	3	9	0

↑ The value of the 2 is 2,000. ↑ The value of the 3 is 300. ↑ The value of the 9 is 90. ↑ The value of the 0 is 0.

► There are different ways to write 2,390.

Different Ways to Write a Number	
You can use standard form .	2,390
You can use expanded form .	$2,000 + 300 + 90$
You can use word form .	two thousand, three hundred ninety



Notice and learn.



- The smallest number consists of 4 digits is 1000
- The greatest number consists of 4 digits is 9999
- The smallest number consists of same 4 digits is 1111
- The greatest number consists of different 4 digits is 9876



Exercise

1

Read and complete using



1 -) 1234 4321

2 -) 2020 2002

3 -) 5678 8765

4 -) 7080 8070

5 -) 5028 8250

6 -) 3210 2301

7 -) 1212 2121

8 -) 5487 4875

Exercise

2

Read and write the value of each digit :

5487

Thousands	Hundreds	Tens	Ones

5487

Thousands	Hundreds	Tens	Ones

4875

Thousands	Hundreds	Tens	Ones

4875

Thousands	Hundreds	Tens	Ones

Formation of greatest number (4 digits) :

- The smallest digit is placed at one's place.
- The next greater digit is placed at ten's place.
- The next greater digit is placed at hundred's place and so on.
- The greatest digit is placed at the highest place of the number.

• Formation of smallest number (4 digits) :

- The greatest digit is placed at one's place.
- The next smaller digit at ten's place and so on till all the given digits are finished.
- The smallest digit is placed at the highest place of the number.

Example :



Form the greatest and the smallest number using these 4 digits.

7

2

9

0

Greatest : 9720

Smallest : 2079



Exercise

3

Form the greatest and the smallest number using 4 digits :

5

0

8

1

8

Thousands	Hundreds	Tens	Ones	Discard

Greatest :

Smallest :

Thousands	Hundreds	Tens	Ones	Discard

Greatest :

Smallest :

Exercise

4

Choose the correct answer :

- 1 -) The number after 999 is (998 - 999- 1000)
- 2 -) The number after 8799 is (8777 - 8798 - 8800)
- 3 -) The number before 999 is (998 - 999- 1000)
- 4 -) The number before 8799 is (8777 - 8798 - 8800)

Exercise

5

Read and complete as in the example :

2358 : two thousand three hundred fifty-eight

2078 ;	.....
7856 ;	.....
1278 ;	.....
5248 ;	.....
9371 ;	.....
7913 ;	.....

Exercise

6

Read and complete as in the example :

4578 : four thousand five hundred seventy-eight

2000 + 500 :	.....
7800 + 50 :	.....
1200 + 20 :	.....
3000 + 200 :	.....
9000 + 1 :	.....
3600 + 56 :	.....

Exercise

7

Read and complete as in the example :

$$5915 = 5000 + 900 + 10 + 5$$

7478 ;

.....

1456 ;

.....

8578 ;

.....

5248 ;

.....

9671 ;

.....

6313 ;

.....

1238 ;

.....

4566 ;

.....

7898 ;

.....

7418 ;

.....

8521 ;

.....

9633 ;

.....

9511 ;

.....

3573 ;

.....

Exercise

7

Read and order the numbers :

5915 - 4578 - 4815 - 9652

From least to greatest :

From greatest to least :

3005 - 2015 - 2020 - 2078

From least to greatest :

From greatest to least :

Exercise

8

Read and complete using



1 -) $4500 + 25$

$7800 + 59$

2 -) $8700 + 25$

$2600 + 10$

3 -) $400 + 250$

$7000 + 20$

4 -) $9000 + 11$

$2048 + 500$

5 -) $7800 + 250$

$9005 + 700$



Lessons 13 - 14



- The smallest number consists of 5 digits is 10000
- The greatest number consists of 5 digits is 99999



Notice and learn.

95847



Ten thousands	thousands	hundreds	tens	ones
↑	↑	↑	↑	↑
↓	↓	↓	↓	↓
90000	5000	800	40	7



$$958407 = 90000 + 5000 + 800 + 40 + 7$$

Nine hundred fifty-eight thousand four hundred seven

- The smallest number consists of 5 digits is 10000
- The greatest number consists of 5 digits is 99999
- The smallest number consists of same 5 digits is 11111
- The greatest number consists of different 5 digits is 98765



Exercise

1

Read and answer :

- 1-) The place value of the digit 1 in the number 45180 is
- 2-) The place value of the digit 2 in the number 25975 is
- 3-) The place value of the digit 8 in the number 45180 is
- 4-) The digit value of the digit 1 in the number 19745 is
- 5-) The digit value of the digit 6 in the number 45678 is

Exercise

2

Read and answer :

45127 - 59108 - 20894

Ten thousands	Thousands	Hundreds	Tens	Ones

Exercise

3

Read and complete as in the example :

12078 ; Twelve thousand seventy-eight

27856 ;

31278 ;

45248 ;

59371 ;

67913 ;

Exercise

4

Read and complete as in the example :

12078 ; 10000 + 2000 + 78

27856 ;

31278 ;

45248 ;

59371 ;

67913 ;

Exercise

5

Choose the correct answer :

- 1 -) The number after 9999 is (9998 - 9999- 10000)
- 2 -) The number after 87099 is (87077 - 87098 - 87100)
- 3 -) The number before 9999 is (9998 - 9999- 10000)
- 4 -) The number before 87990 is (87770 - 87989 - 88000)
- 5 -) - The smallest number of 5 digits is (99998 - 99999 - 10000)
- 6 -) - The greatest number of 5 digits is (99999 - 99990 - 10000)
- 7 -) - The smallest number of 5 same digits is (99999 - 22222 - 11111)
- 8 -) - The greatest number of 5 different digits is (56578 - 12345 - 98765)



Exercise

6

Read and order the numbers :

59125 - 45278 - 42815 - 96522

From least to greatest :

From greatest to least :

30205 - 22015 - 20220 - 20728

From least to greatest :

From greatest to least :

Exercise

7

Read and complete using  :

1 -) $45000 + 25$

$78090 + 509$

2 -) $87000 + 25$

$20600 + 10$

3 -) $40090 + 25$

$70050 + 200$

4 -) $90010 + 10$

$20048 + 500$

5 -) $70800 + 25$

$90505 + 700$

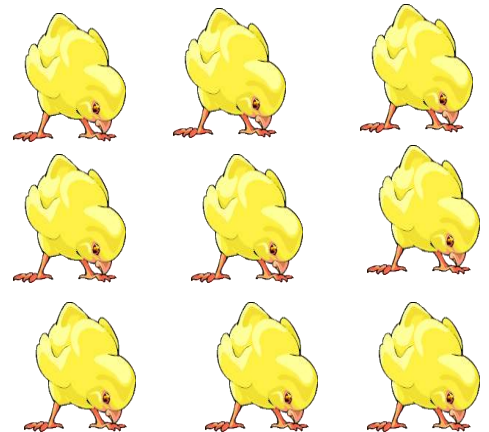
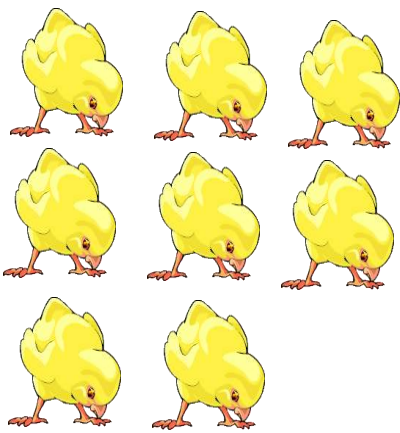


Lessons 15 - 16

Strategies to count things

Arrays or groups is an arrangement of objects, pictures, or numbers in columns and rows

Compare :



Example

Count to find the total number :



First way :

Number of rows = 2

Number of cars = 4

Total number = $4 + 4 = 8$ cars.

Second way :

Number of columns = 4

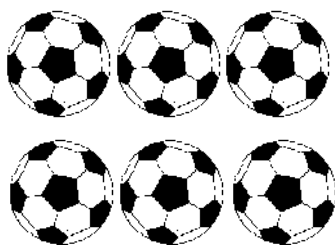
Number of cars = 2

Total number = $2 + 2 + 2 + 2 = 8$ cars.

Exercise

1

Find the total number of things :



$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots + \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

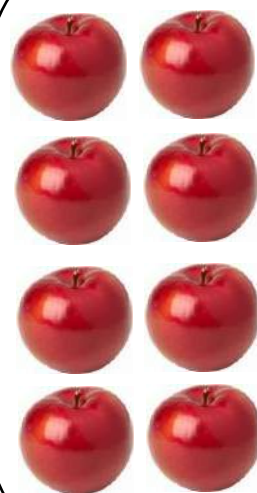
Array or group name **×**



$$\dots\dots + \dots\dots + \dots\dots = \dots\dots\dots$$

$$\dots\dots + \dots\dots + \dots\dots + \dots\dots + \dots\dots + \dots\dots = \dots\dots\dots$$

Array or group name **×**



$$\dots\dots + \dots\dots + \dots\dots = \dots\dots\dots$$

$$\dots\dots + \dots\dots + \dots\dots = \dots\dots\dots$$

Array or group name **×**

$$\dots\dots + \dots\dots = \dots\dots\dots$$

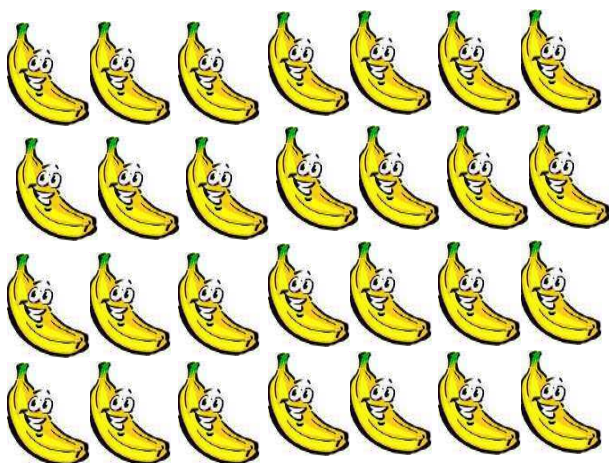
$$\dots\dots + \dots\dots + \dots\dots + \dots\dots = \dots\dots\dots$$

Array or group name **×**

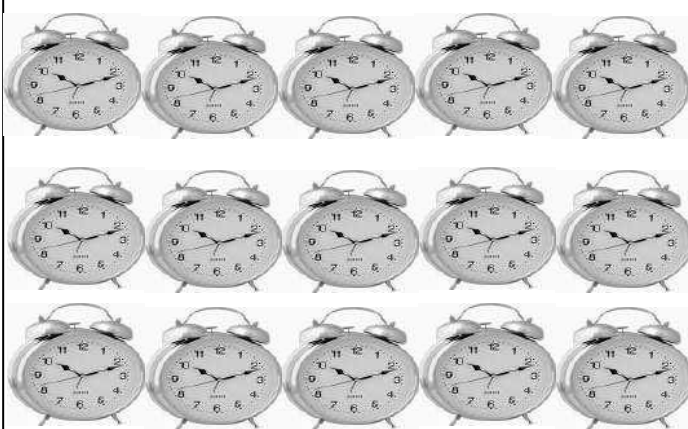
Exercise

2

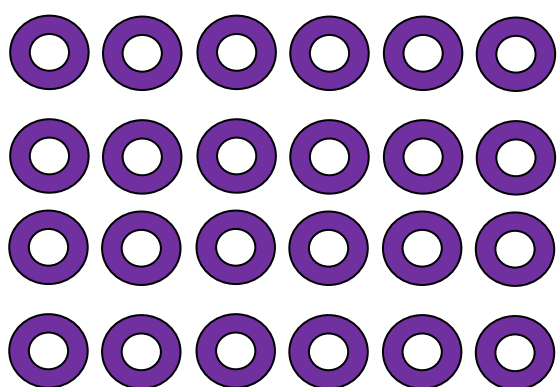
Find the total number using the repeated addition :



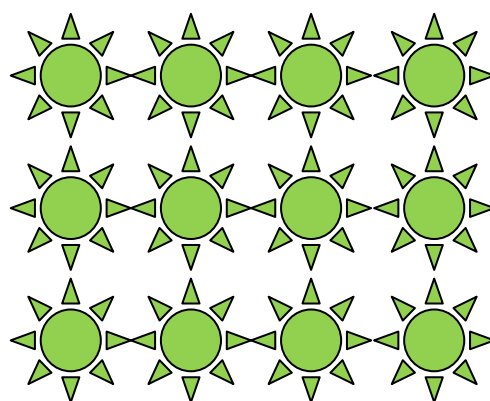
Total number =



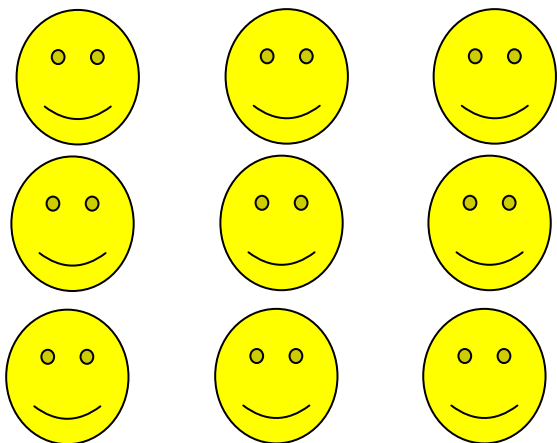
Total number =



Total number =



Total number =



Total number =

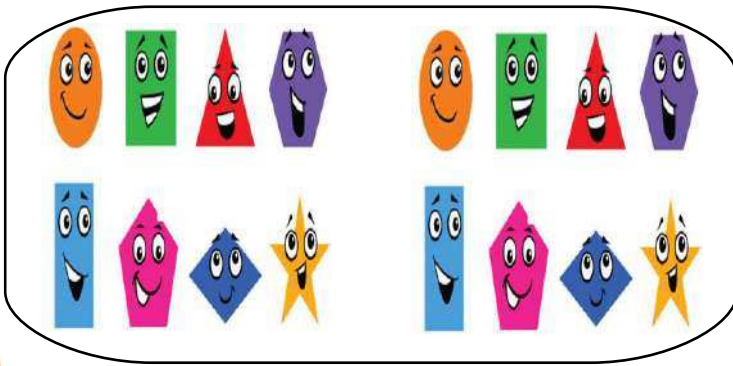


Total number =

Exercise

3

Find the total number using the repeated addition :



..... =

..... =

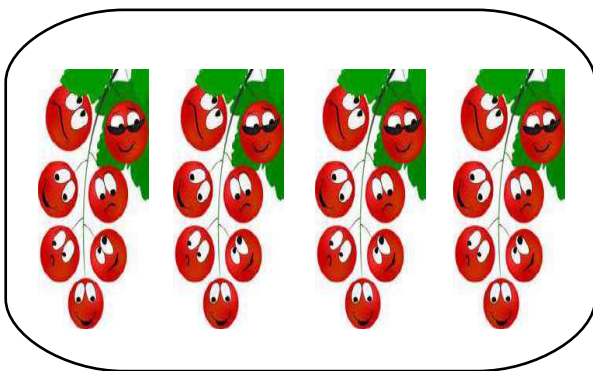
Array or group name ~~X~~



..... =

..... =

Array or group name ~~X~~



..... =

..... =

Array or group name ~~X~~



..... =

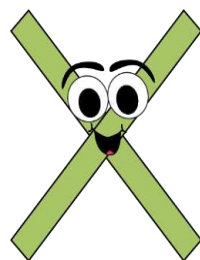
..... =

Array or group name ~~X~~

Lessons 17 - 18

Multiplication (repeated addition)

Multiplication is the process of adding a number to itself a certain number of times represented by the sign $\times$



Addition process = $4 + 4 + 4 = 12$

Multiplication process = $3 \times 4 = 12$

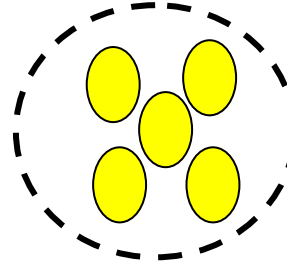
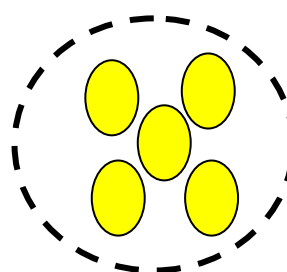
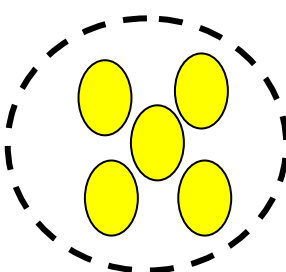
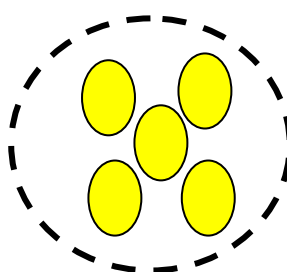
4 pens $\times$ 3 groups = 12 pens



Exercise

1

Complete as in the example :

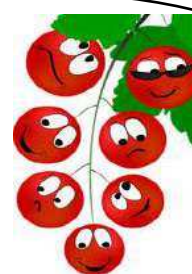
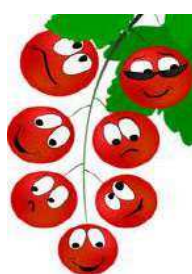
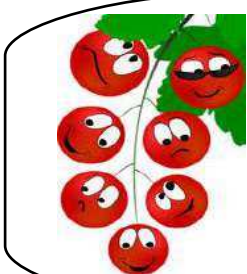


Groups = 4

Number of things in each group = 5

Repeated addition = $5 + 5 + 5 + 5 = 20$

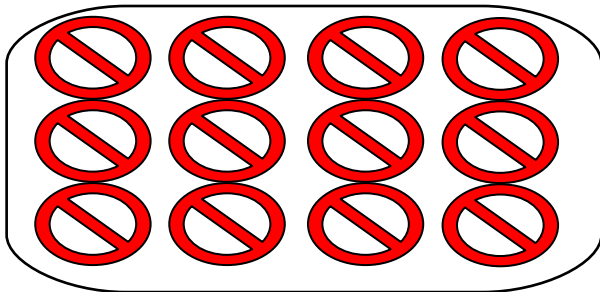
Multiplication process = $3 \times 4 = 12$



Groups =

Repeated addition = + + =

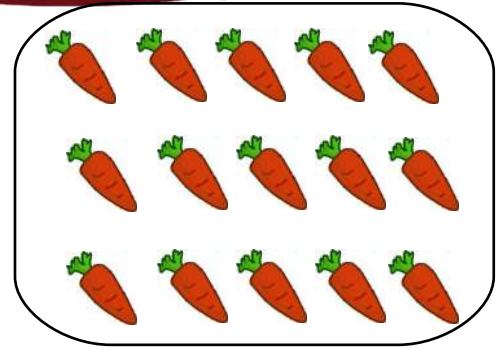
Number of things in each group = Multiplication process = $\times$ =



Rows =

Repeated addition = =

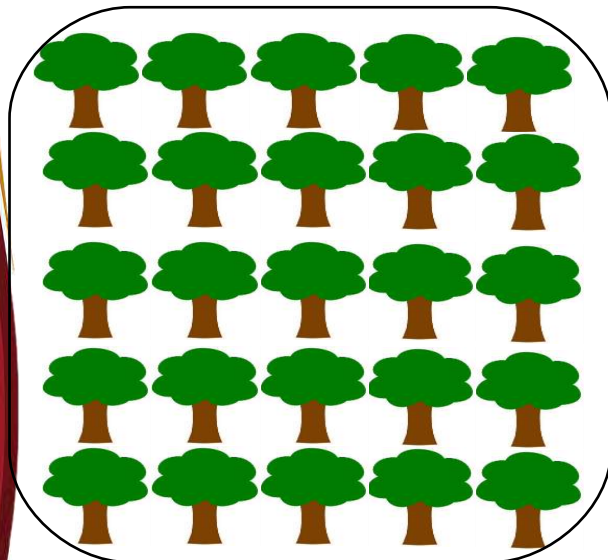
Multiplication process = × =



Rows =

Repeated addition = =

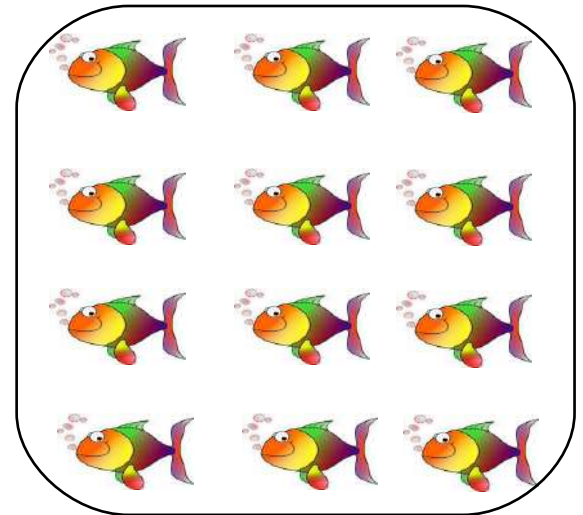
Multiplication process = × =



Rows =

Repeated addition = =

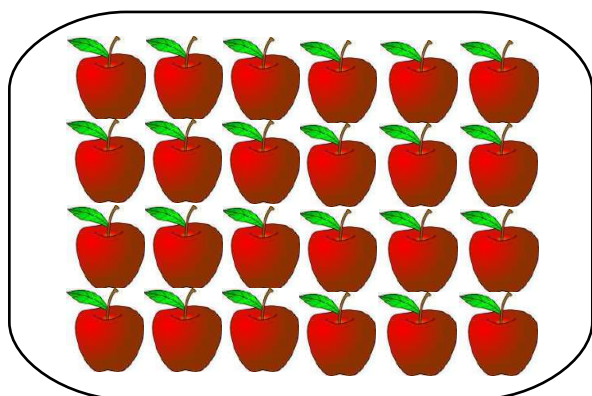
Multiplication process = × =



Rows =

Repeated addition = =

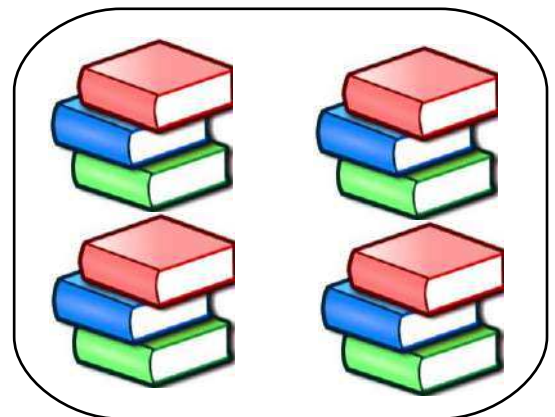
Multiplication process = × =



Rows =

Repeated addition = =

Multiplication process = × =



Rows =

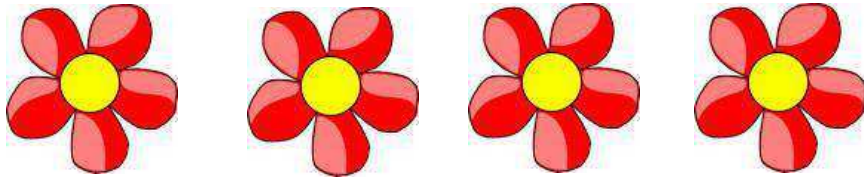
Repeated addition = =

Multiplication process = × =

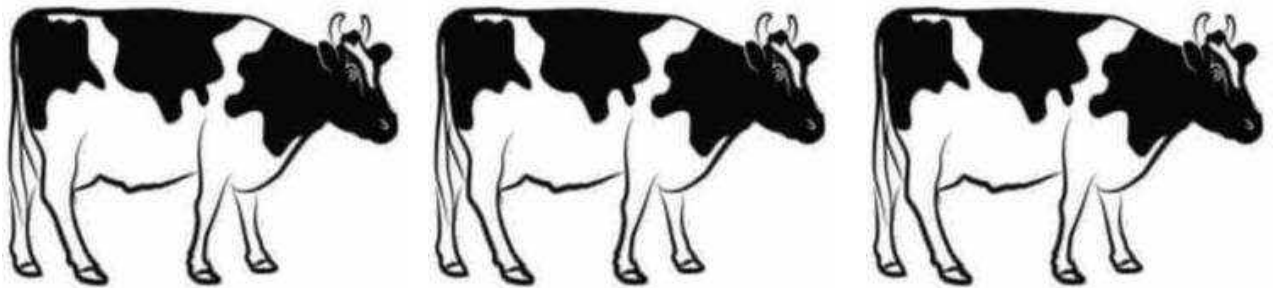
Exercise

2

Complete as in the example :



Number of flowers leaves = $4 \times 5 = 20$



Number of cows feet = $\times$ =



Number of animals = $\times$ =

Exercise

3

Complete as in the example :

1-) $8 \times 3 = 8 + 8 + 8$

2-) $1 \times 9 = \dots\dots\dots$

3-) $2 \times 8 = \dots\dots\dots$

4-) $7 \times 3 = \dots\dots\dots$

5-) $4 \times 5 = \dots\dots\dots$

6-) $9 \times 3 = \dots\dots\dots$

7-) $8 \times 2 = \dots\dots\dots$

8-) $4 \times 6 = \dots\dots\dots$

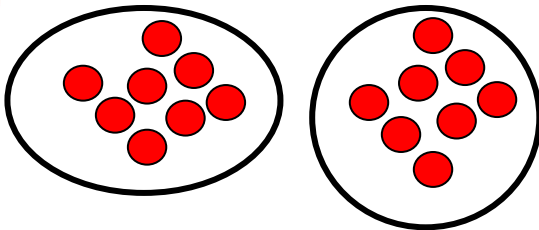
9-) $6 \times 7 = \dots\dots\dots$

10-) $7 \times 2 = \dots\dots\dots$

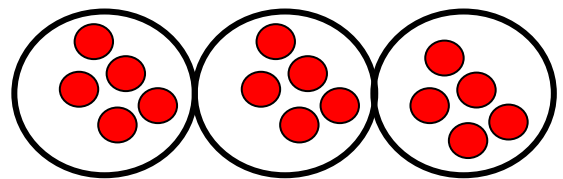
Exercise

3

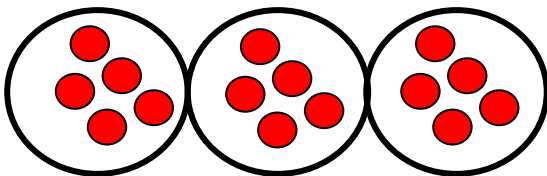
Complete as in the example :



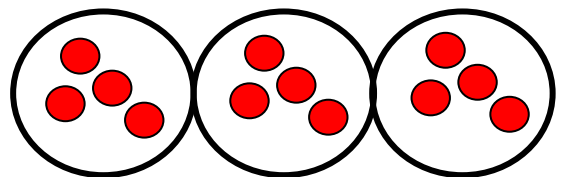
$2 \times 8 = 16$



$\dots\dots \times \dots\dots = \dots\dots$



$\dots\dots \times \dots\dots = \dots\dots$

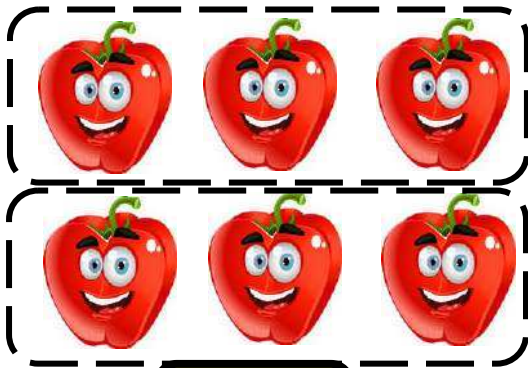


$\dots\dots \times \dots\dots = \dots\dots$

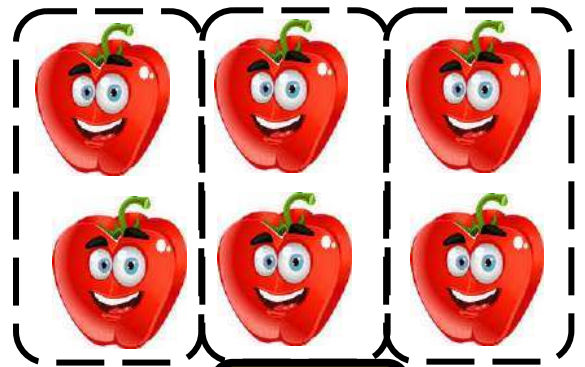
Lessons 19 - 20

Multiplication Commutative property

The order of the factors does not change the product. The result of multiplying 10×3 will be equal to multiplying 3×10 . Although we change the order of the factors, the result is still 30.



$$3 \times 2$$



$$2 \times 3$$

$$2 \times 3 = 3 \times 2$$

Exercise

1

Complete as in the example :

1-) $2 \times 3 = 3 \times 2$

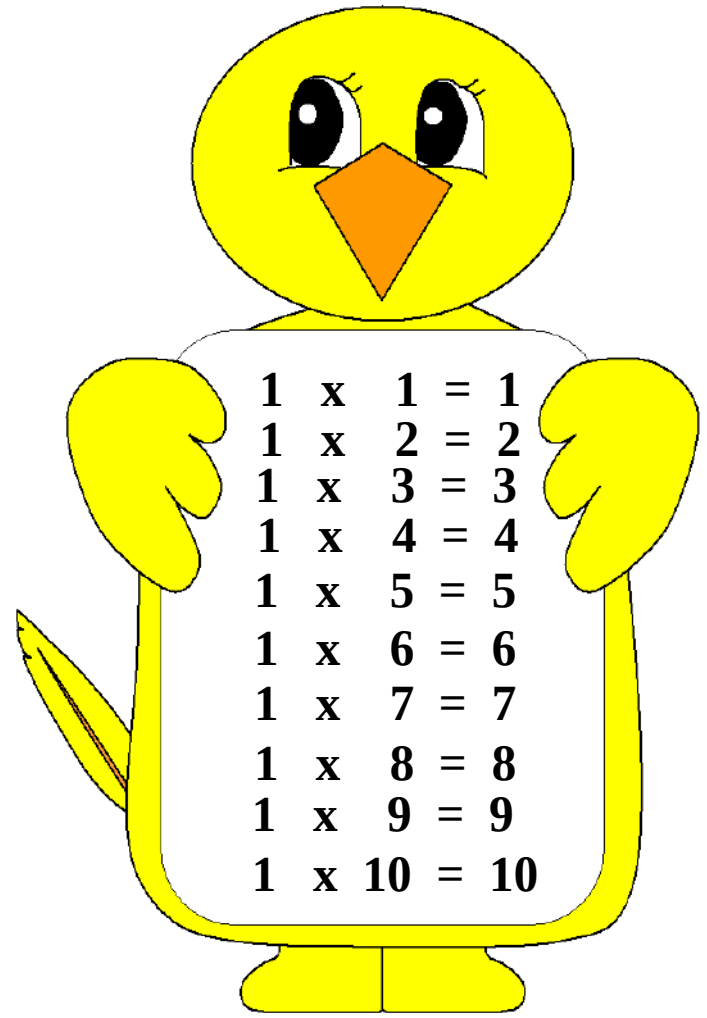
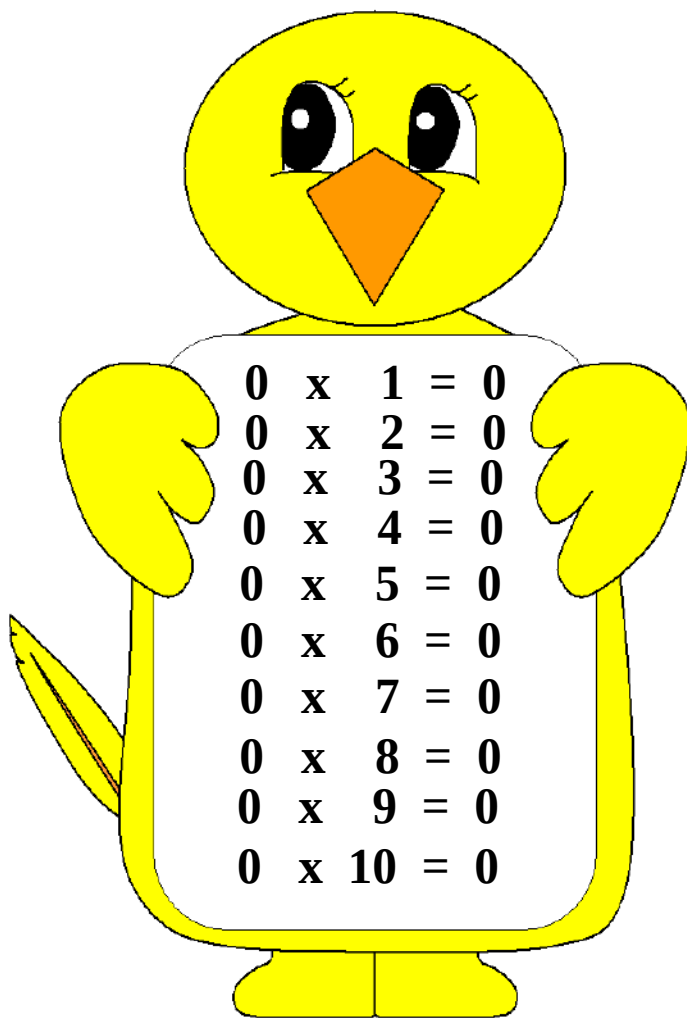
2-) $\dots \times 9 = 8 \times \dots$

3-) $\dots \times 1 = 4 \times \dots$

4-) $\dots \times 0 = 5 \times \dots$

5-) $\dots \times 8 = 7 \times \dots$

6-) $\dots \times 6 = 4 \times \dots$



Exercise

2

Read and answer :

1 -) How many birds all together ?

..... x = birds

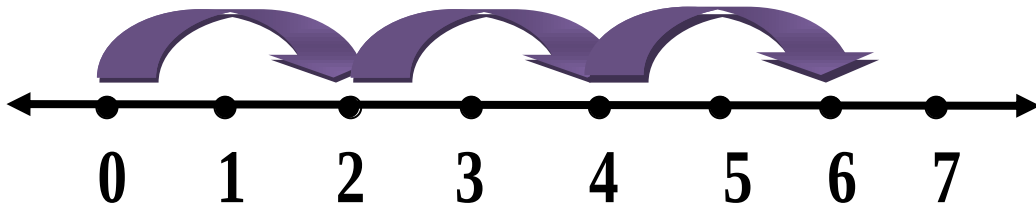


2 -) How many buses all together ?

..... x = buses



To get a multiple of a number, we add the same number to itself. For example, multiple of 2 is $2 + 2 = 4$. Multiples of 2 are 0, 2, 4, 6, 8,



Exercise

3

Complete as in the example :

1-) $2 \times 3 = 6$

2-) $0 \times 3 = \dots\dots\dots$

3-) $2 \times 8 = \dots\dots\dots$

4-) $0 \times 1 = \dots\dots\dots$

5-) $1 \times 3 = \dots\dots\dots$

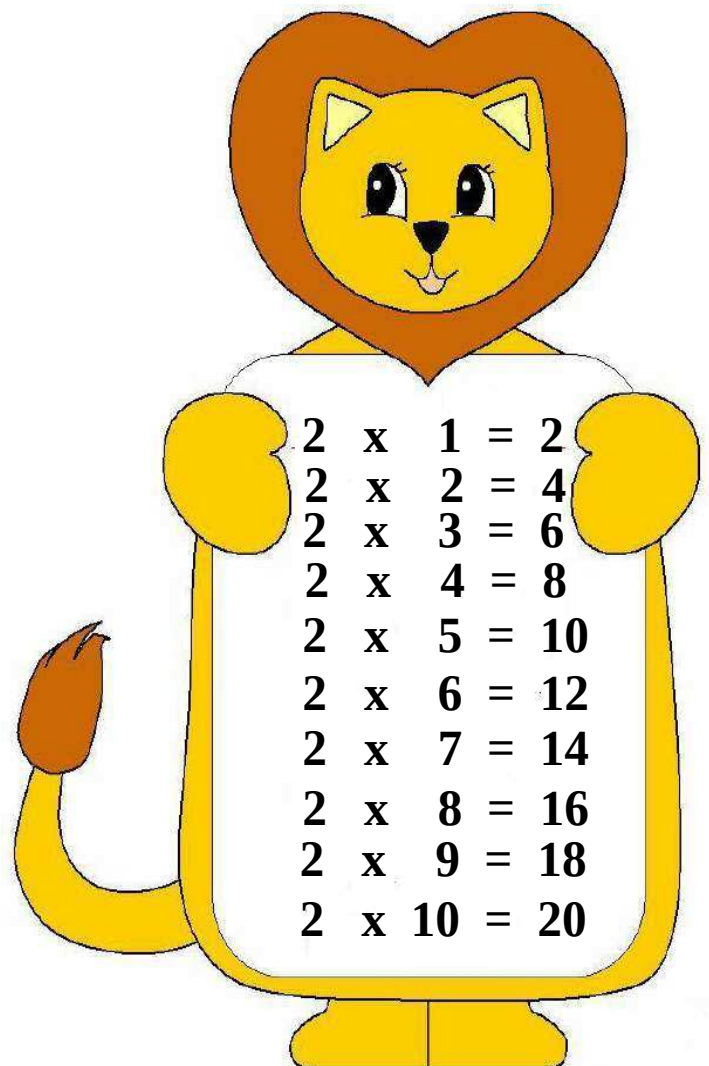
6-) $0 \times 5 = \dots\dots\dots$

7-) $2 \times 7 = \dots\dots\dots$

8-) $0 \times 4 = \dots\dots\dots$

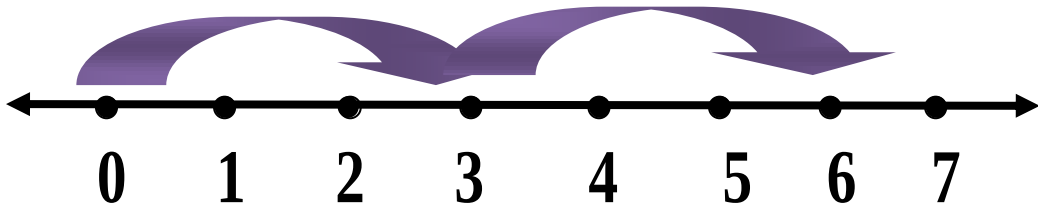
7-) $2 \times 10 = \dots\dots\dots$

8-) $0 \times 10 = \dots\dots\dots$



$2 \times 1 = 2$
 $2 \times 2 = 4$
 $2 \times 3 = 6$
 $2 \times 4 = 8$
 $2 \times 5 = 10$
 $2 \times 6 = 12$
 $2 \times 7 = 14$
 $2 \times 8 = 16$
 $2 \times 9 = 18$
 $2 \times 10 = 20$

To get a multiple of a number, we add the same number to itself. For example, multiple of 3 is $3 + 3 = 6$. Multiples of 3 are 0, 3, 6, 9, 12,



Exercise

4

Complete as in the example :

1-) $3 \times 3 = 9$

2-) $2 \times 3 = \dots\dots\dots$

3-) $2 \times 0 = \dots\dots\dots$

4-) $3 \times 1 = \dots\dots\dots$

5-) $1 \times 5 = \dots\dots\dots$

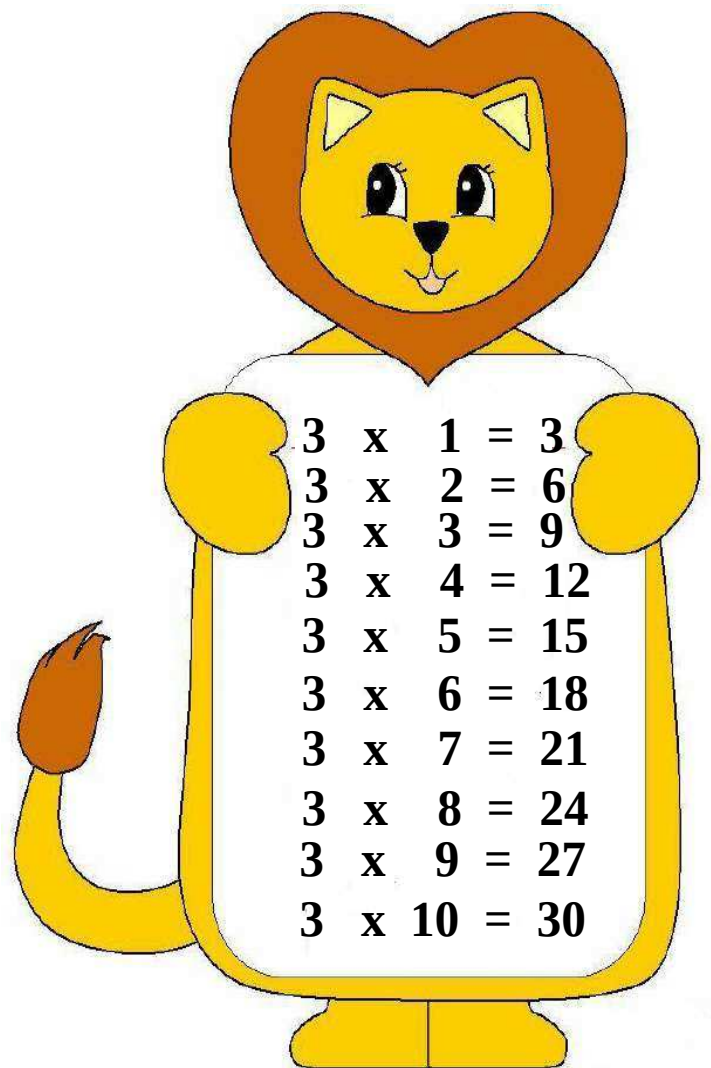
6-) $2 \times 5 = \dots\dots\dots$

7-) $2 \times 9 = \dots\dots\dots$

8-) $1 \times 4 = \dots\dots\dots$

7-) $3 \times 10 = \dots\dots\dots$

8-) $2 \times 10 = \dots\dots\dots$



$3 \times 1 = 3$
 $3 \times 2 = 6$
 $3 \times 3 = 9$
 $3 \times 4 = 12$
 $3 \times 5 = 15$
 $3 \times 6 = 18$
 $3 \times 7 = 21$
 $3 \times 8 = 24$
 $3 \times 9 = 27$
 $3 \times 10 = 30$

Chapter 3

Lessons 21- 25



Multiplication

Solving real life problems (word exercises)

Exercise

1

Read, think and answer :

1) Amal saw 6 buses. Each bus has 4 wheels. How many wheels all buses have all together ?

a) Using repeated addition :

.....

b) Using multiplication :

.....



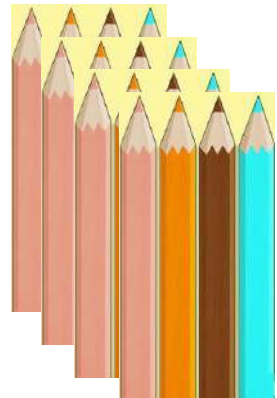
2) Mr. Ayman gave 4 pens to 5 students that got the full mark. How many pens Mr. Ayman had ?

a) Using repeated addition :

.....

b) Using multiplication :

.....



3) Nada study 4 pages in Maths everyday. Ahmed study 4 pages in Arabic everyday. How many pages Nada and Ahmed study all together ?

a) Using repeated addition :

.....

b) Using multiplication :

.....



4) There are 2 classes at school. Every class has 10 students. How many students all together ?

a) Using repeated addition :

.....

b) Using multiplication :

.....



5) Samia went to the store to buy rolls for a big family dinner. At the store, she bought 4 bags of rolls. Each bag contained 5 rolls. How many rolls did Samia buy?

a) Using repeated addition :

.....

b) Using multiplication :

.....



6) Dina brought 6 bags of cookies to school. Each bag had 3 cookies in it. How many cookies were there all together?

a) Using repeated addition :

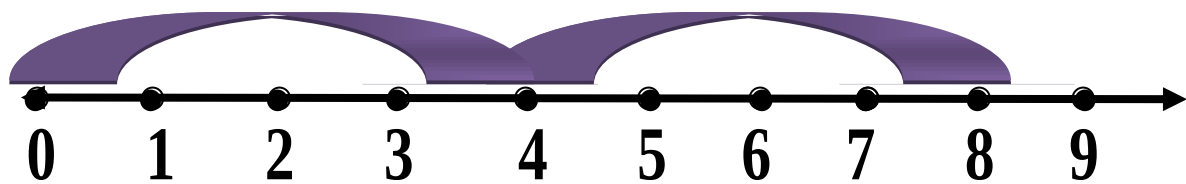
.....

b) Using multiplication :

.....



To get a multiple of a number, we add the same number to itself. For example, multiple of 4 is $4 + 4 = 8$. Multiples of 4 are 0, 4, 8, 12,



Exercise

2

Complete as in the example :

1-) $4 \times 3 = 12$

2-) $2 \times 4 = \dots\dots\dots$

3-) $2 \times 4 = \dots\dots\dots$

4-) $3 \times 4 = \dots\dots\dots$

5-) $4 \times 5 = \dots\dots\dots$

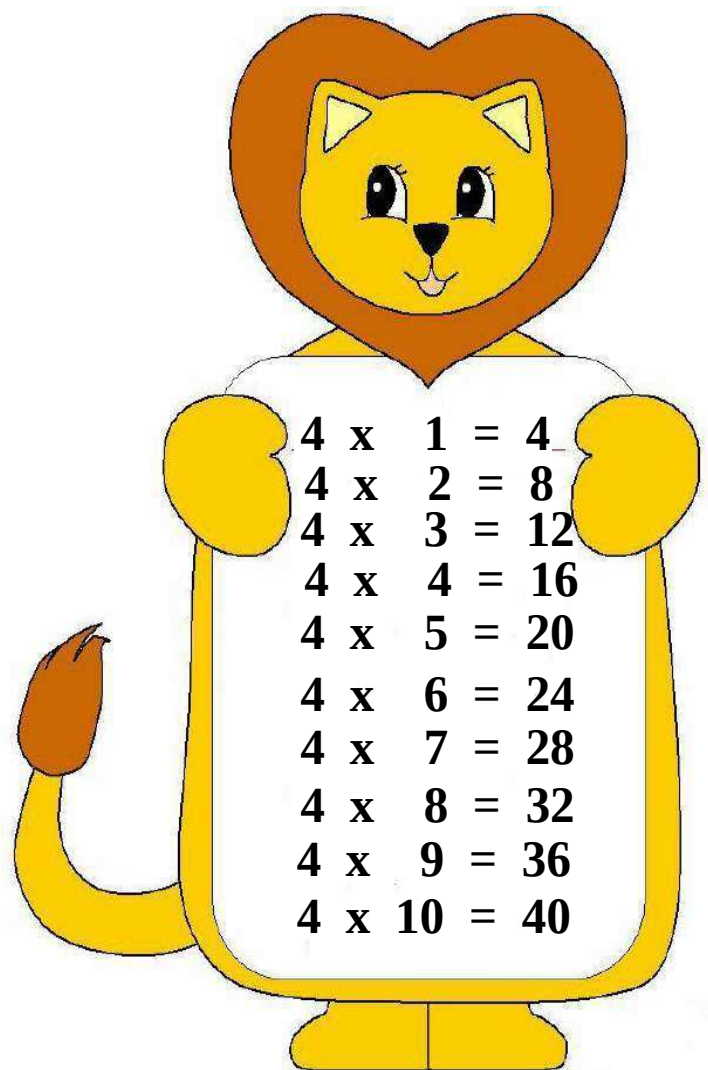
6-) $2 \times 3 = \dots\dots\dots$

7-) $3 \times 9 = \dots\dots\dots$

8-) $4 \times 1 = \dots\dots\dots$

7-) $4 \times 10 = \dots\dots\dots$

8-) $4 \times 9 = \dots\dots\dots$



Exercise

3

Complete as in the example :

1-) Multiples of 3 are 0, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30

2-) Multiples of 2 are

3-) Multiples of 4 are

Exercise

4

Choose the correct answer :

1-) Multiple of 3 is (2 - 6 - 8)

2-) Multiple of 2 is (4 - 9 - 15)

3-) $0 \times 10 = \dots\dots\dots$ (2 - 6 - 0)

4-) $1 \times 9 = \dots\dots\dots$ (2 - 9 - 8)

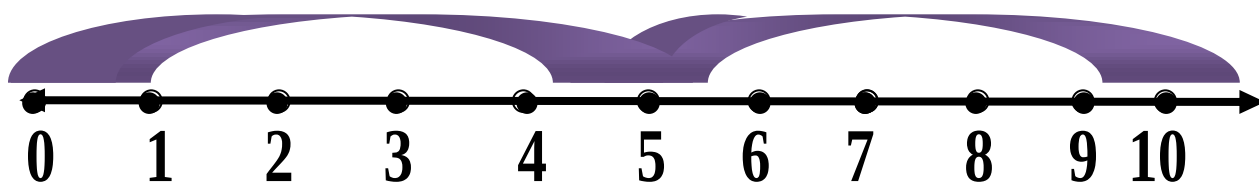
5-) $4 \times 1 = \dots\dots\dots$ (4 - 6 - 0)

6-) $3 \times 9 = \dots\dots\dots$ (27 - 79 - 78)

7-) $4 \times 3 = \dots\dots\dots$ (11 - 15 - 12)

8-) $4 \times 9 = \dots\dots\dots$ (36 - 50 - 55)

To get a multiple of a number, we add the same number to itself. For example, multiple of 5 is $5 + 5 = 10$. Multiples of 5 are 0, 5, 10, 15,



Exercise

5

Complete as in the example :

1-) $5 \times 3 = 15$

2-) $5 \times 4 = \dots\dots\dots$

3-) $2 \times 5 = \dots\dots\dots$

4-) $5 \times 5 = \dots\dots\dots$

5-) $2 \times 5 = \dots\dots\dots$

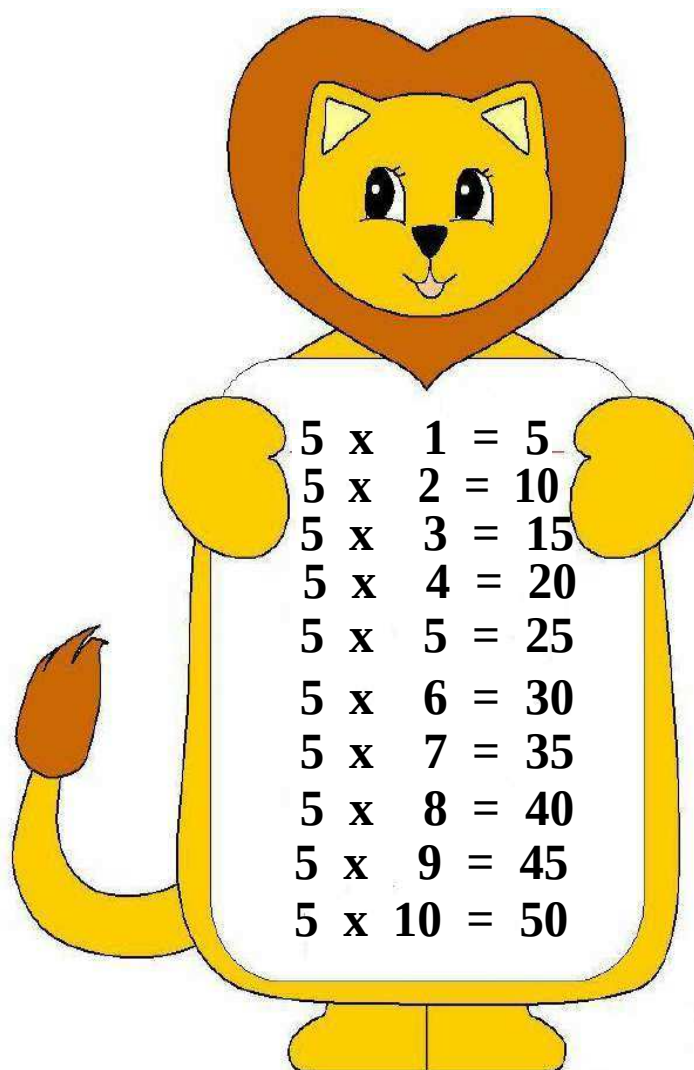
6-) $3 \times 3 = \dots\dots\dots$

7-) $3 \times 7 = \dots\dots\dots$

8-) $4 \times 5 = \dots\dots\dots$

7-) $5 \times 10 = \dots\dots\dots$

8-) $5 \times 9 = \dots\dots\dots$



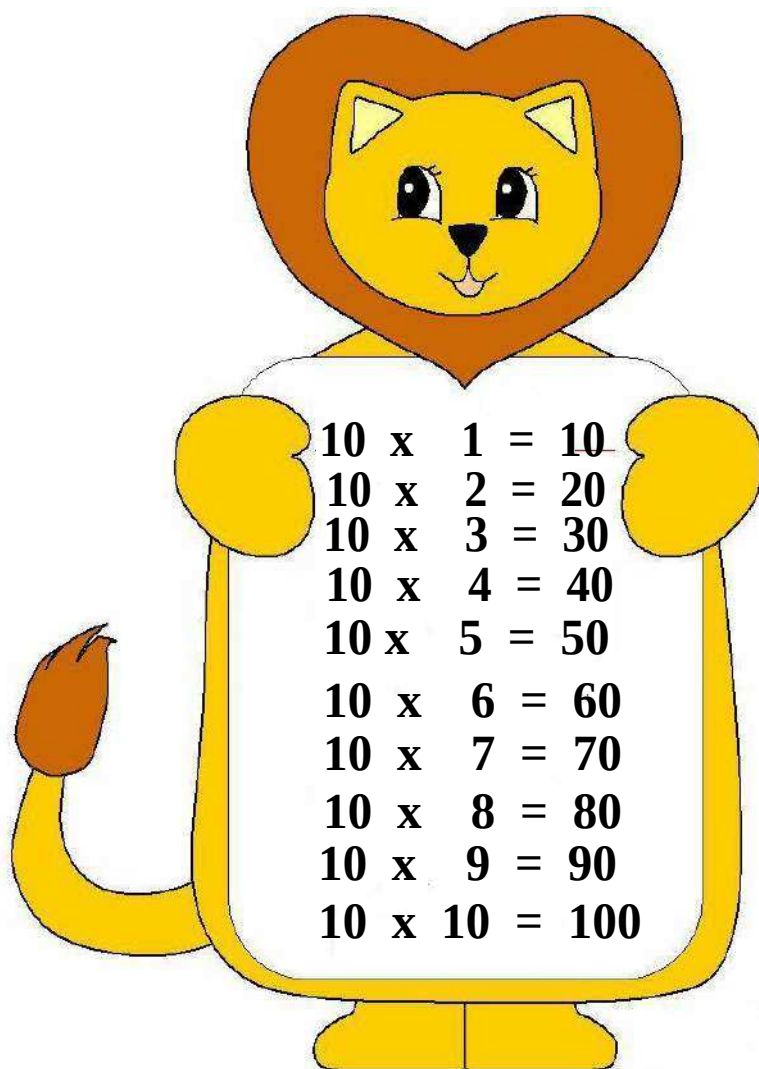
To get a multiple of a number, we add the same number to itself. For example, multiple of 10 is $10 + 10 = 20$. Multiples of 10 are 0, 10, 20, 30,

Exercise

6

Complete as in the example :

- 1-) $10 \times 3 = 30$
- 2-) $10 \times 4 = \dots\dots\dots$
- 3-) $10 \times 5 = \dots\dots\dots$
- 4-) $10 \times 6 = \dots\dots\dots$
- 5-) $2 \times 10 = \dots\dots\dots$
- 6-) $3 \times 7 = \dots\dots\dots$
- 7-) $10 \times 7 = \dots\dots\dots$
- 8-) $4 \times 10 = \dots\dots\dots$
- 7-) $5 \times 5 = \dots\dots\dots$
- 8-) $10 \times 9 = \dots\dots\dots$



To get a multiple of a number, we add the same number to itself. For example, multiple of 6 is $6 + 6 = 12$. Multiples of 6 are 0, 6, 12, 18,

Exercise

7

Complete as in the example :

1-) $6 \times 3 = 18$

2-) $6 \times 4 = \dots\dots\dots$

3-) $6 \times 5 = \dots\dots\dots$

4-) $6 \times 6 = \dots\dots\dots$

5-) $6 \times 1 = \dots\dots\dots$

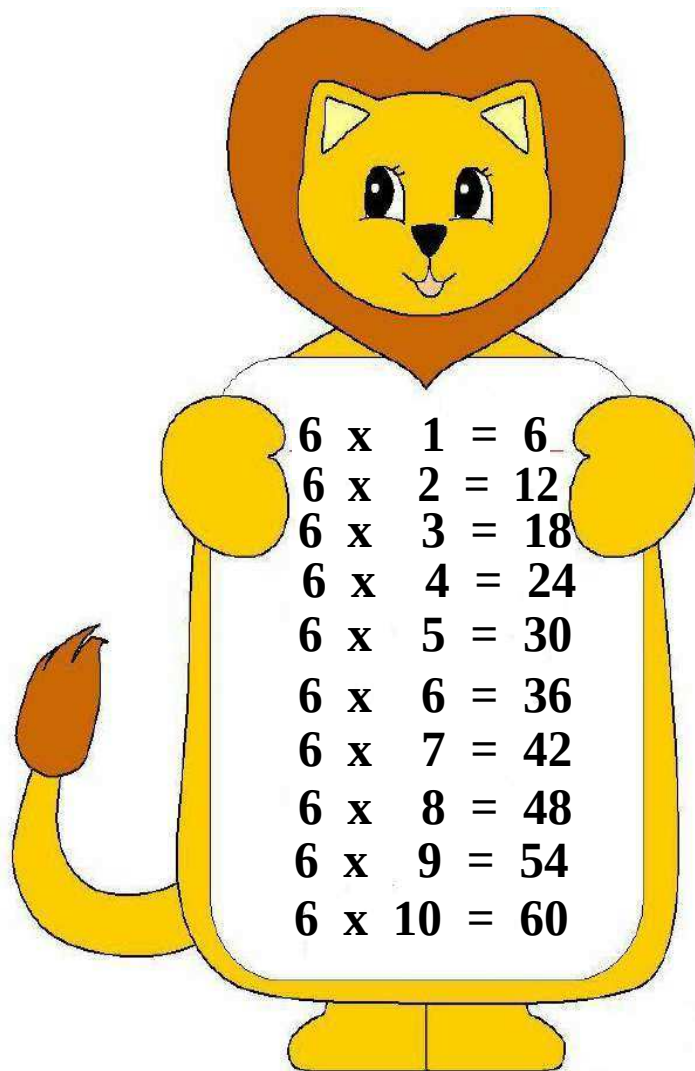
6-) $6 \times 0 = \dots\dots\dots$

7-) $6 \times 7 = \dots\dots\dots$

8-) $6 \times 9 = \dots\dots\dots$

7-) $6 \times 10 = \dots\dots\dots$

8-) $6 \times 8 = \dots\dots\dots$



To get a multiple of a number, we add the same number to itself. For example, multiple of 7 is $7 + 7 = 14$. Multiples of 7 are 0, 7, 14, 21,

Exercise

8

Complete as in the example :

1-) $7 \times 3 = 21$

2-) $7 \times 4 = \dots\dots\dots$

3-) $7 \times 5 = \dots\dots\dots$

4-) $7 \times 6 = \dots\dots\dots$

5-) $7 \times 1 = \dots\dots\dots$

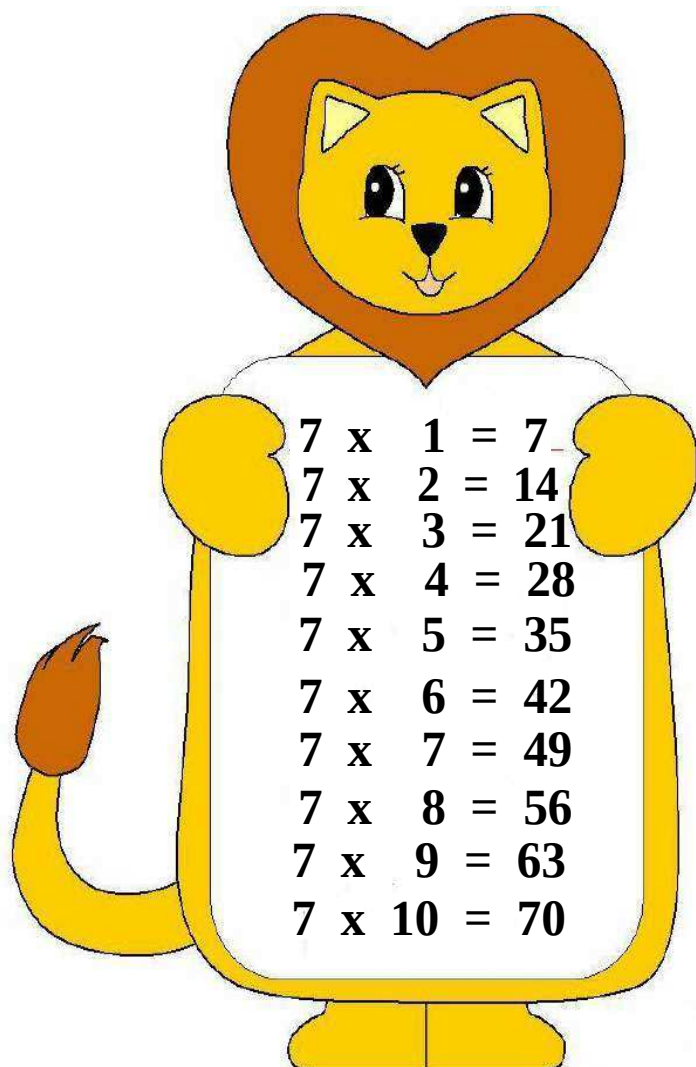
6-) $7 \times 0 = \dots\dots\dots$

7-) $7 \times 7 = \dots\dots\dots$

8-) $7 \times 9 = \dots\dots\dots$

7-) $7 \times 10 = \dots\dots\dots$

8-) $7 \times 8 = \dots\dots\dots$



To get a multiple of a number, we add the same number to itself. For example, multiple of 8 is $8 + 8 = 16$. Multiples of 8 are 0, 8, 16, 24,

Exercise

9

Complete as in the example :

1-) $8 \times 3 = 24$

2-) $8 \times 4 = \dots\dots\dots$

3-) $8 \times 5 = \dots\dots\dots$

4-) $8 \times 6 = \dots\dots\dots$

5-) $8 \times 1 = \dots\dots\dots$

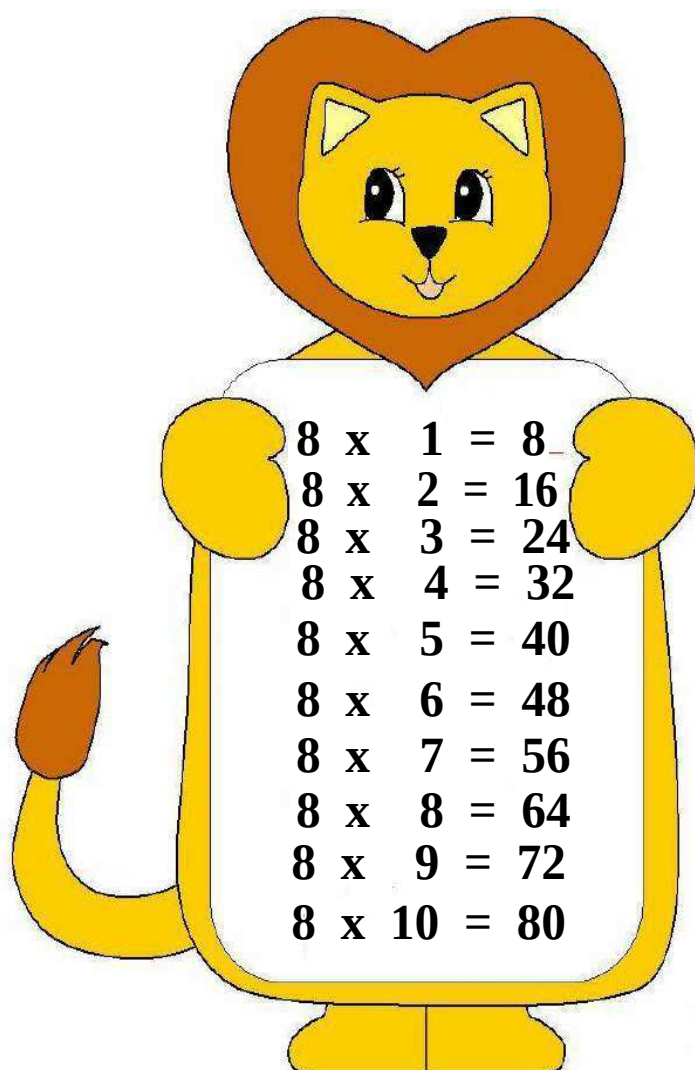
6-) $8 \times 0 = \dots\dots\dots$

7-) $8 \times 7 = \dots\dots\dots$

8-) $8 \times 9 = \dots\dots\dots$

7-) $8 \times 10 = \dots\dots\dots$

8-) $8 \times 8 = \dots\dots\dots$



Exercise

Use the 120 Chart below to complete the following :

1-) Color the multiples of 2 using red ?

2-) Color the multiples of 3 using blue ?

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

3-) List the first 10 multiples of 2 ?

_____ , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____

4-) List the first 10 multiples of 3 ?

_____ , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____

Prime Factorization :

It is finding which prime numbers multiply together to make the original number.

Example 1: What are the factors of 12 ?

It is best to start working from the smallest prime number, which is 2, so let's check:

$$\textcircled{1} \times 8 = 8 \quad \text{Or} \quad \textcircled{2} \times 4 = 8$$

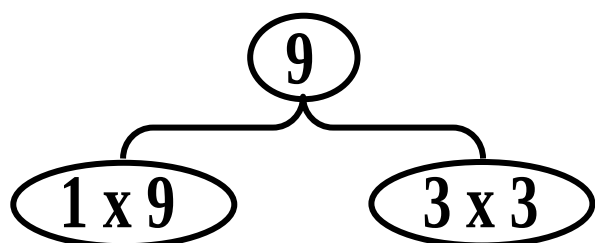
$$\textcircled{4} \times 2 = 8 \quad \text{Or} \quad \textcircled{8} \times 1 = 8$$

The factors of 8 are 1, 2, 4, 8

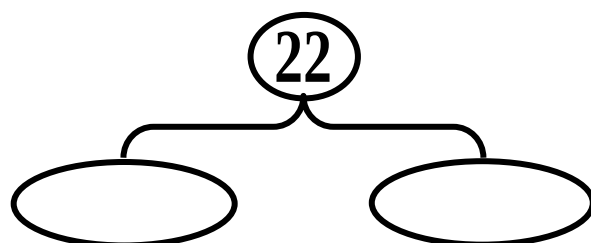
Exercise

Find the factors as in the example :

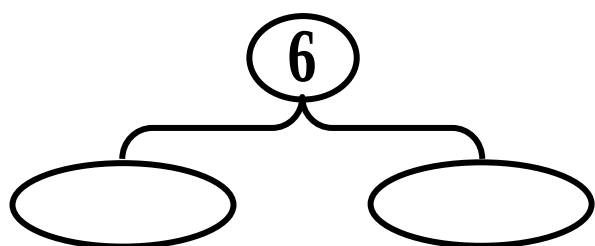
①



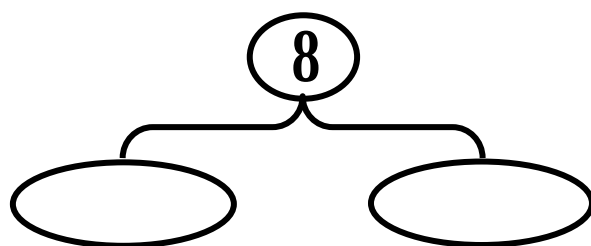
The factors : 1, 3, 9



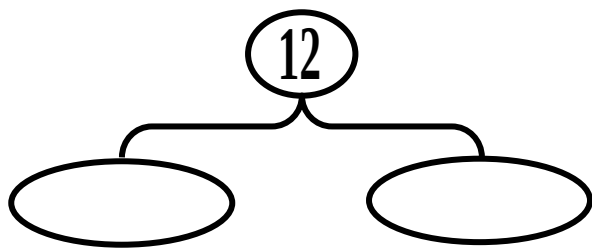
The factors :



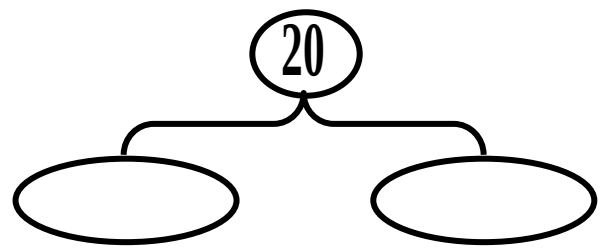
The factors :



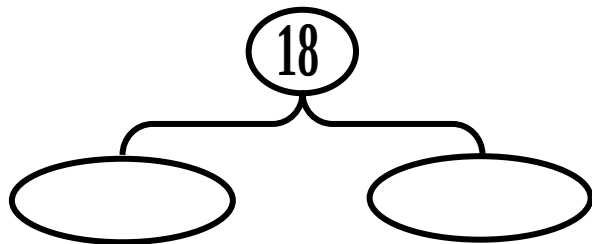
The factors :



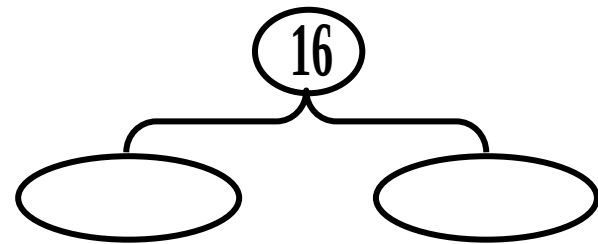
The factors :



The factors :



The factors :



The factors :

Exercise

2

Read and complete as in the example :

1-) Mariam had 4 sweaters. Each sweater had 3 buttons on it.
How many total buttons are there on all the sweaters?

Total buttons = x = buttons.



2-) Amir hiked for 3 days over the summer. Each day he hiked
7 miles. How many miles did he hike in all?

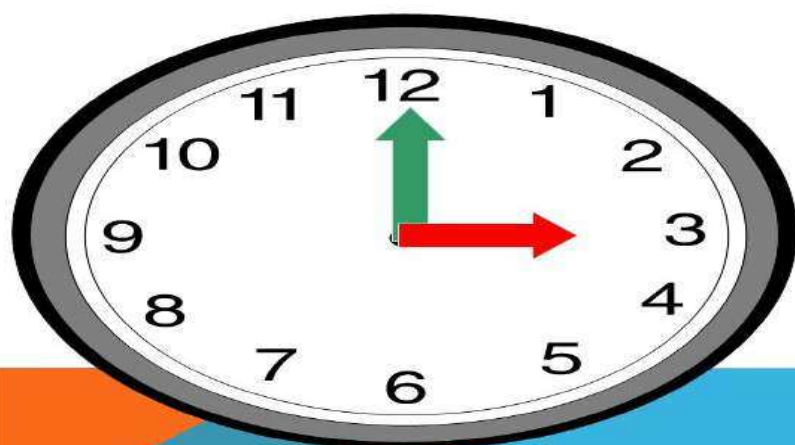
Total miles = x = miles.



Lessons 26- 27



THE HANDS OF TIME



The long hand is the minute hand.

The short hand is the hour hand.

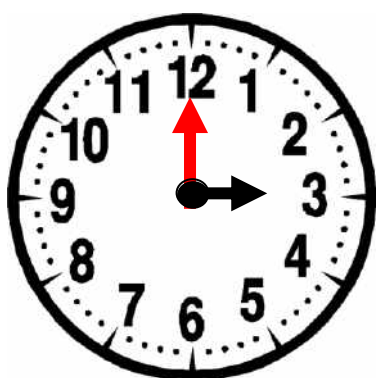
1 day = 24 hours

1 hour = 60 minutes

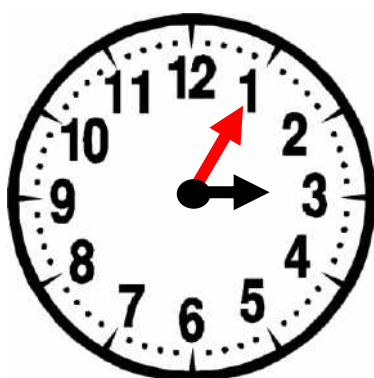
1 half hour = 30 minutes

1 quarter hour = 15 minutes

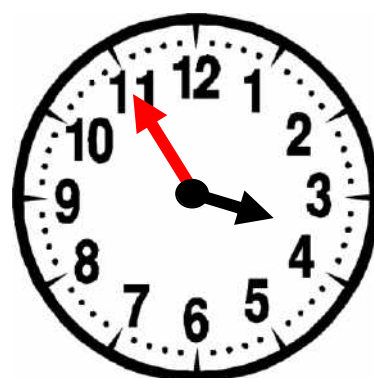
1 minute = 60 seconds



3 : 00



3 : 05



3 : 55

Exercise

1

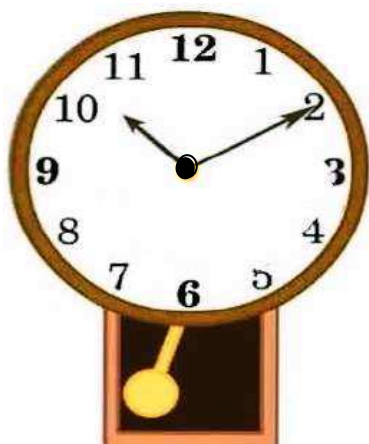
Write the digital time below :



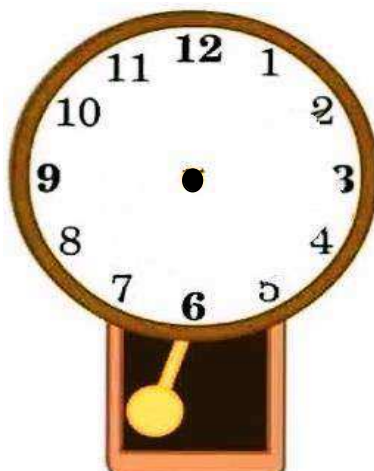
Exercise

2

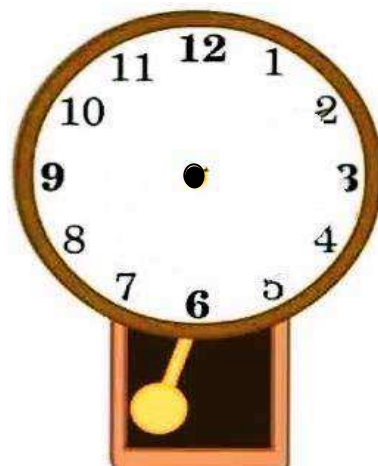
Draw the hands of the clock according to the given time :



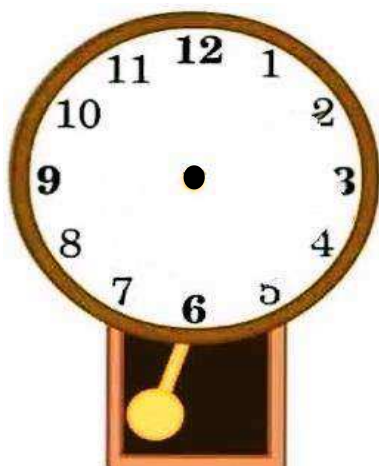
10 : 10



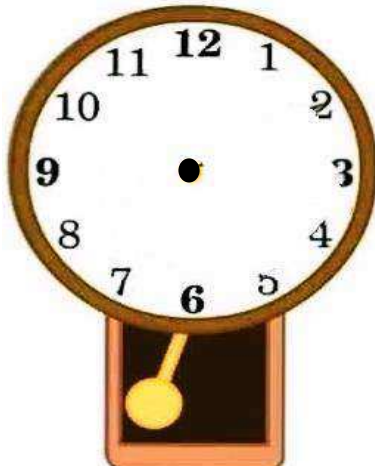
7 : 25



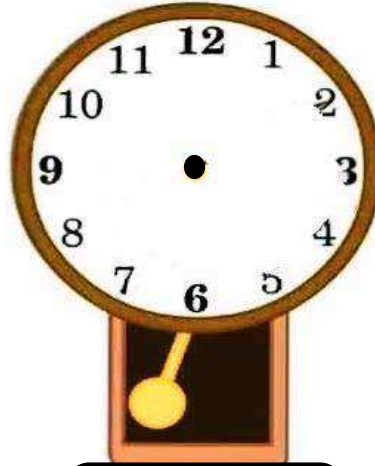
8 : 05



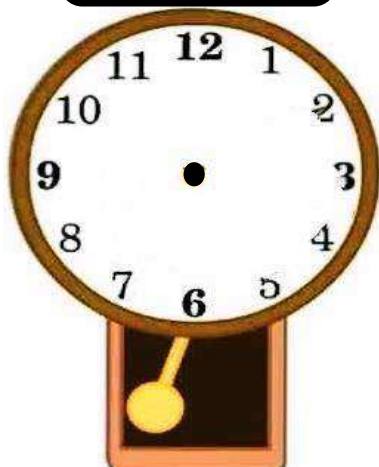
1 : 35



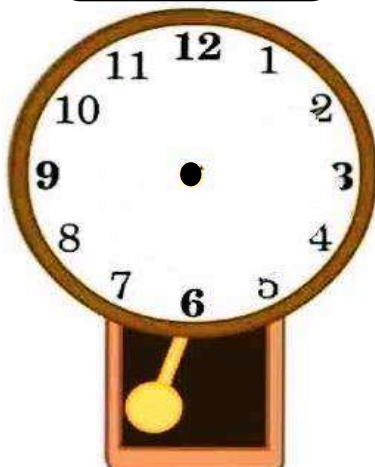
10 : 45



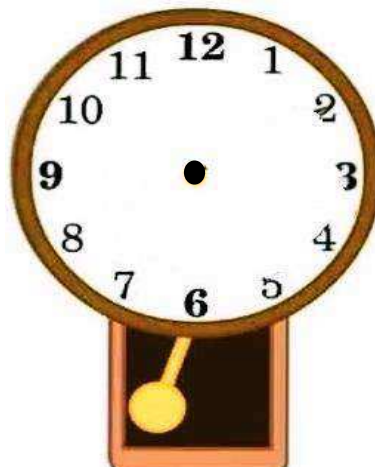
4 : 20



9 : 15



12 : 50



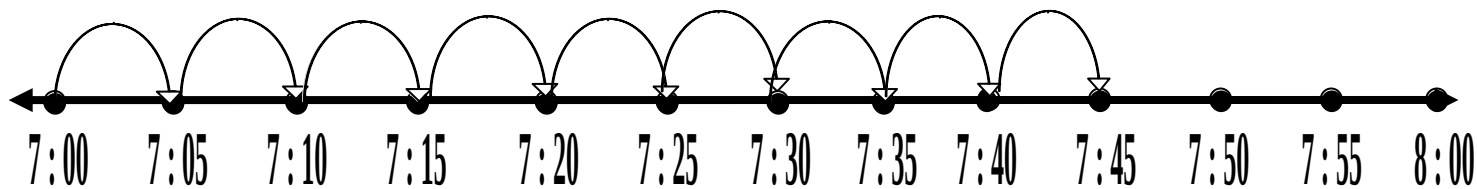
2 : 40

Elapsed time :



It is simply the amount of time that passes from the beginning of an event to its end.

Example 1: Ahmed take 45 minutes to arrive to the school. If he started walking to school at 7 : 00. When he will arrive to the school ?



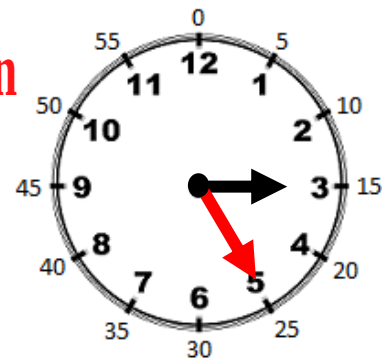
He will arrive at 7 : 45

Exercise

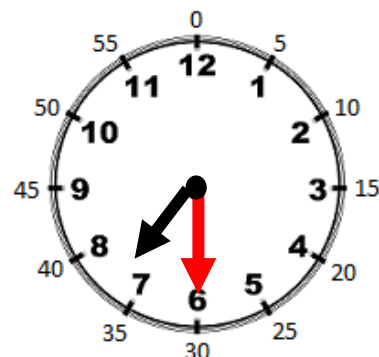
1

Read and answer using the number line :

1-) Your mum puts a cake in the oven at 7 :00. When you take it out the clock looks like this:
How many minutes did it take to bake the cake ?



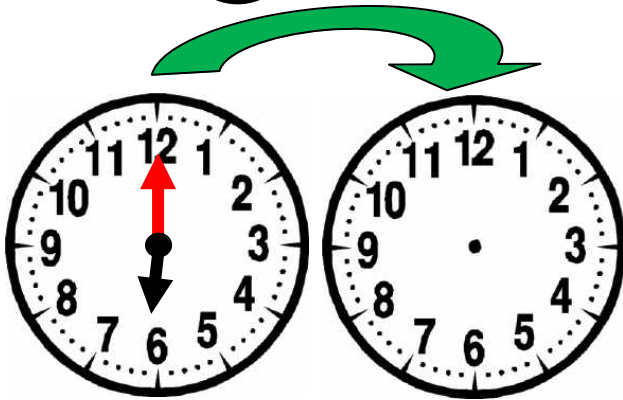
2-) You leave school at 3:00 and when you get home the clock looks like this:
How many minutes did it take you to walk home?



Exercise

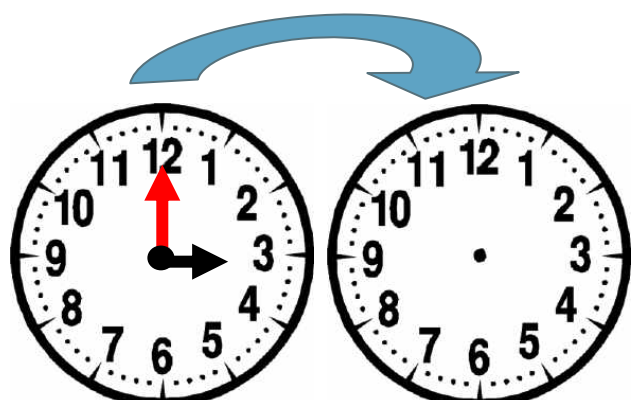
2

Draw the hands of the clock according to the given time :



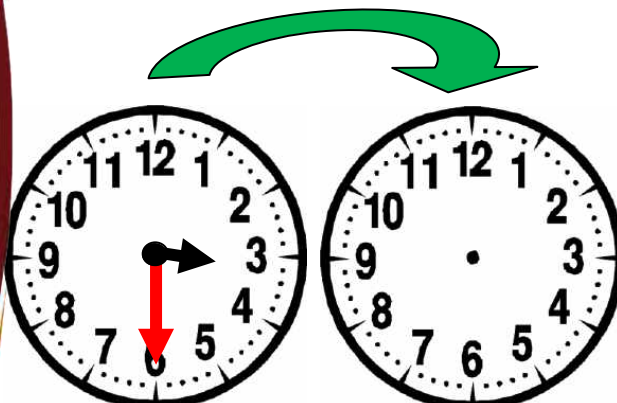
Now

Half hour before



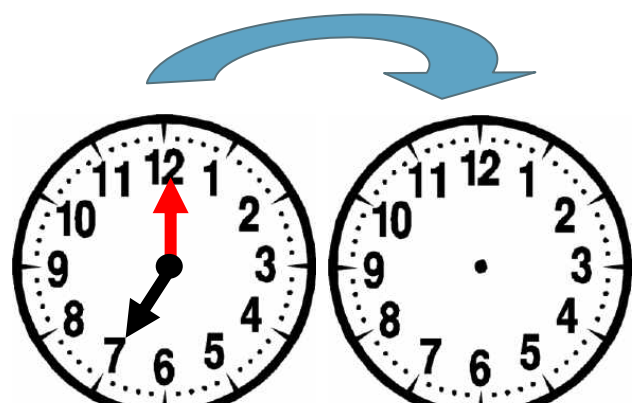
Now

Hour and half after



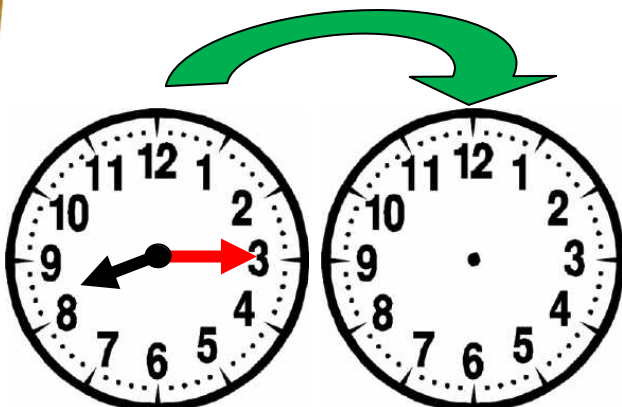
Now

Two hours before



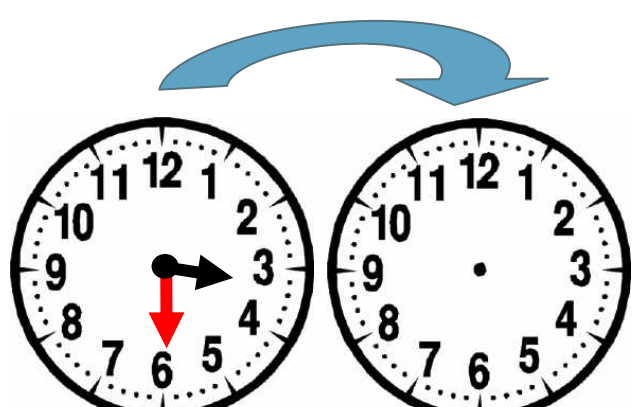
Now

Three hours after



Now

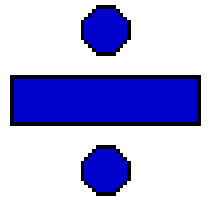
Hour and half before



Now

Three hours before

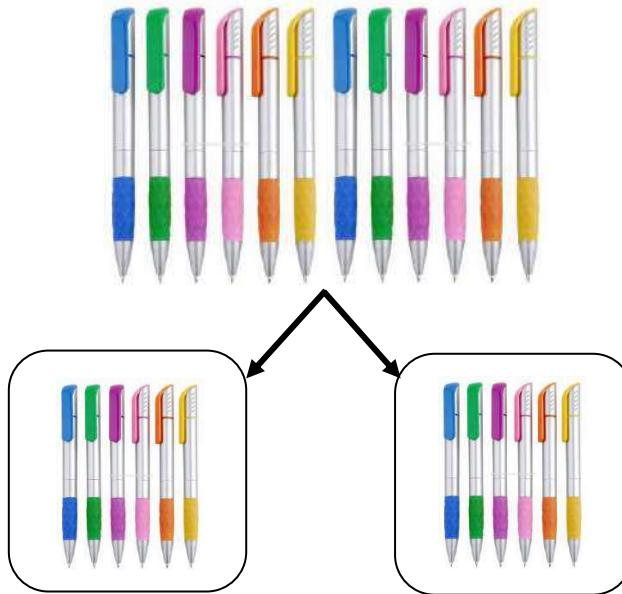
Lessons 28- 29



Division :

distributing a group of things into equal parts.

Example: there are 12 pens and 2 students. How do they divide the pens ?



We use the $\div$ symbol, or sometimes the $/$ symbol to mean divide:

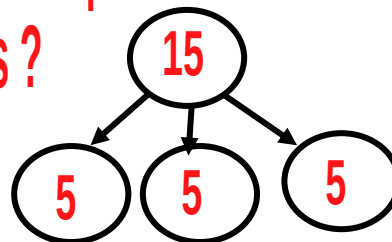
$$12 \text{ pens} \div 2 \text{ students} = 6 \text{ pens.}$$

$$6 \times 2 = 12$$

Division is the opposite of multiplying.

Example: There are 3 groups of players and captain Tarek has 15 balls.
How does captain Tarek divide the balls ?

$$15 \div 3 = 5$$

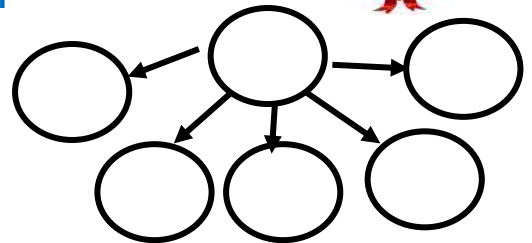


Exercises

Eslam has 4 friends. He has 25 balloons that need to be divided equally.
How does Eslam divide the balloons ? solve the problem.

Everyone will take = = balloons.

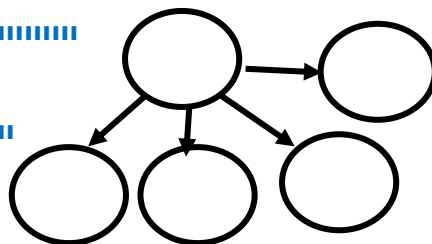
..... X = balloons.



2.) Sameh is preparing gift baskets. He has 20 oranges that need to be divided equally between 5 baskets. Solve the problem.

.....

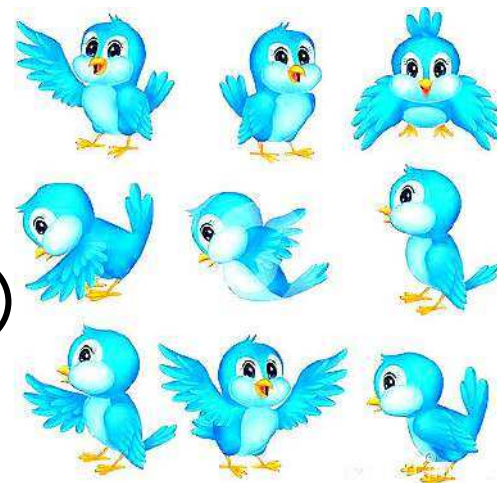
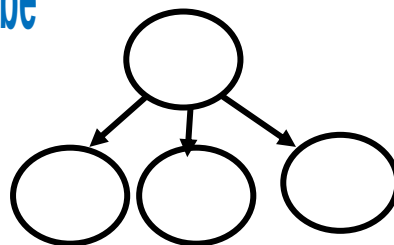
.....



3.) Maha bought 9 birds that need to be divided equally between 5 cages. Solve the problem.

.....

.....



4.) 25 cows were distributed equally among 5 farmers.
How many cows did each farmer get?



5.) 55 chocolates were distributed equally among 5 boys.
How many chocolate did each boy get?



6.) 15 pens were distributed equally among 3 boys.
How many pens did each boy get?



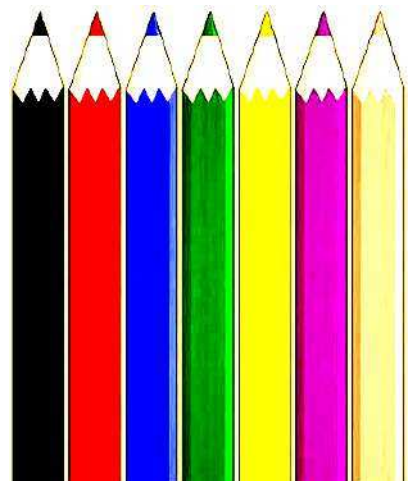
7.) 27 fish were distributed equally among 3 boys. How many fish did each cat get?



8.) Radwa bought 7 pencils and paid 21 pounds.
How many pounds her friend will pay if she wants to
buy 4 pencils ?

1 pencil = pounds

4 pencils = pounds



Exercise

2

Read, think and answer as in the example :

$$1-) 9 \div 3 = 3$$

$$2-) 27 \div 3 = \dots\dots\dots$$

$$3-) 90 \div 9 = \dots\dots\dots$$

$$4-) 45 \div 5 = \dots\dots\dots$$

$$5-) \dots\dots \div 2 = 6$$

$$6-) \dots\dots \div 4 = 8$$

$$7-) \dots\dots \div 7 = 2$$

$$8-) \dots\dots \div 3 = 10$$

$$9-) 25 \div \dots\dots = 5$$

$$10-) 50 \div \dots\dots = 10$$

$$11-) 36 \div \dots\dots = 9$$

$$12-) 8 \div \dots\dots = 4$$

$$13-) 21 \div \dots\dots = 7$$

$$14-) \dots\dots \div 5 = 3$$

Exercise

3

Read, think and answer :

$$1-) \underline{6} \overline{)30}$$

$$2-) \underline{2} \overline{)14}$$

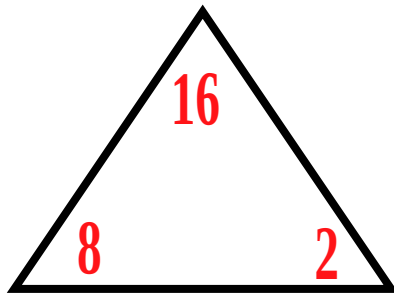
$$3-) \underline{9} \overline{)45}$$

$$4-) \underline{7} \overline{)35}$$

$$5-) \underline{2} \overline{)18}$$

$$6-) \underline{10} \overline{)60}$$

Lesson 30

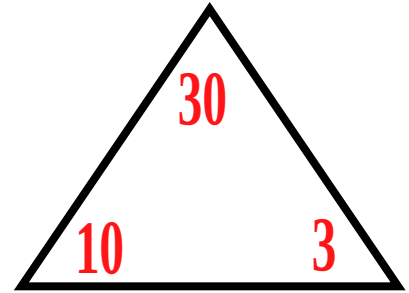


$$2 \times 8 = 16$$

$$8 \times 2 = 16$$

$$16 \div 2 = 8$$

$$16 \div 8 = 2$$



$$3 \times 10 = 30$$

$$10 \times 3 = 30$$

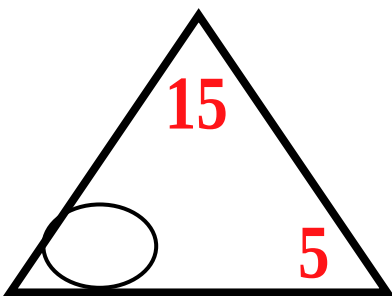
$$30 \div 3 = 10$$

$$30 \div 10 = 3$$

Exercise

1

Read, think and answer :

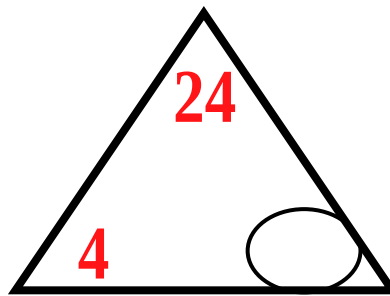


$$\dots \times \dots = \dots$$

$$\dots \times \dots = \dots$$

$$\dots \div \dots = \dots$$

$$\dots \div \dots = \dots$$

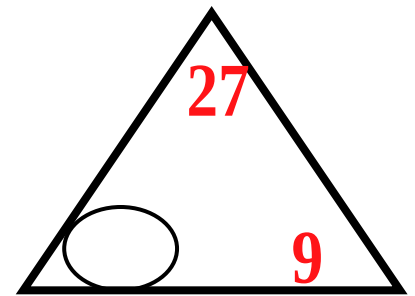


$$\dots \times \dots = \dots$$

$$\dots \times \dots = \dots$$

$$\dots \div \dots = \dots$$

$$\dots \div \dots = \dots$$



$$\dots \times \dots = \dots$$

$$\dots \times \dots = \dots$$

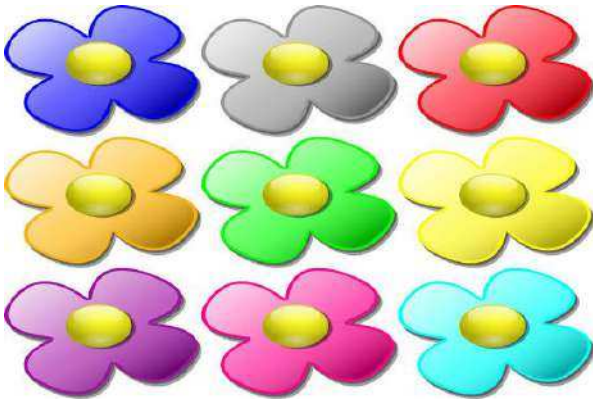
$$\dots \div \dots = \dots$$

$$\dots \div \dots = \dots$$

Exercise

2

Describe each of these arrays using one multiplication equation and one division equation :



$$\dots \times \dots = \dots$$

$$\dots \div \dots = \dots$$



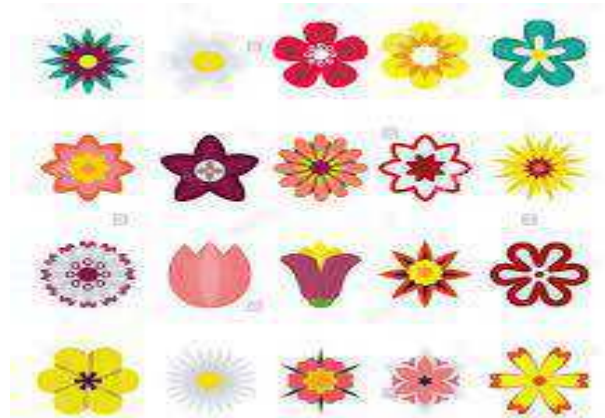
$$\dots \times \dots = \dots$$

$$\dots \div \dots = \dots$$



$$\dots \times \dots = \dots$$

$$\dots \div \dots = \dots$$



$$\dots \times \dots = \dots$$

$$\dots \div \dots = \dots$$



$$\dots \times \dots = \dots$$

$$\dots \div \dots = \dots$$

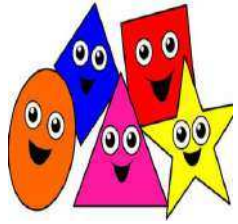


$$\dots \times \dots = \dots$$

$$\dots \div \dots = \dots$$

Lessons 31 - 33

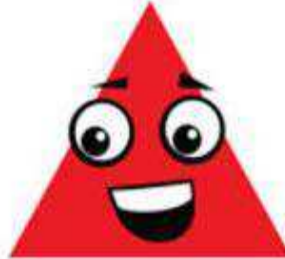
Two-dimensional shapes (2D shapes)



Circle



Square



Triangle



Hexagon



Rectangle



pentagon



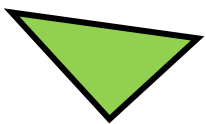
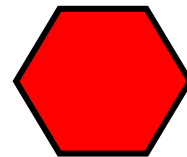
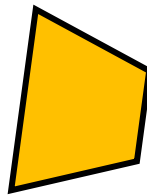
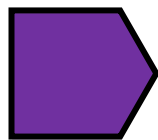
Rhombus



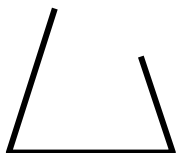
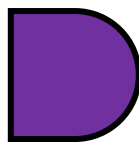
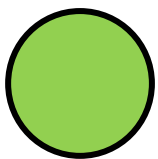
Decagon

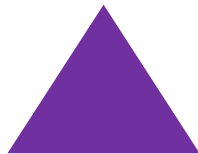
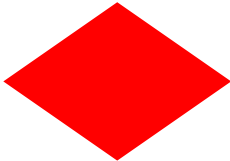
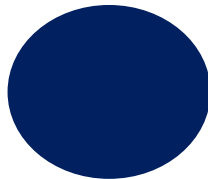
Polygon is a closed shape formed with straight lines.

Polygons



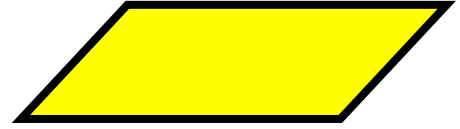
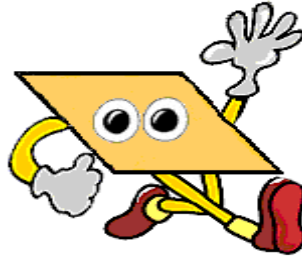
Non-polygons



Name	Shape	Angles	Sides	Attributes
Triangle		3	3	Equal
Square		4	4	Equal
Rhombus		4	4	
Rectangle		4	4	
Circle		0	0	
Trapezium		4	4	
Oval		0	0	

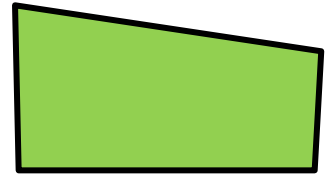
Parallelogram is a flat shape with opposite sides

parallel and equal in length



Parallelogram is a 4-sided flat shape

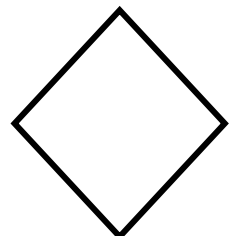
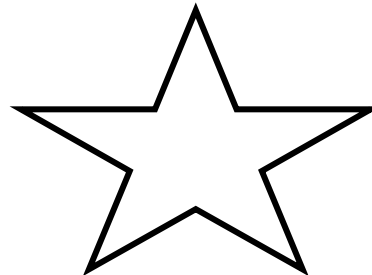
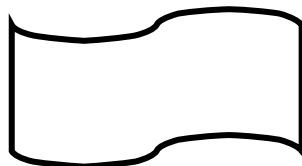
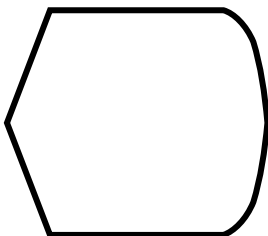
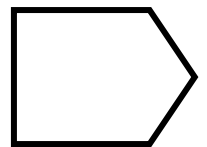
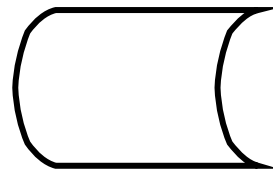
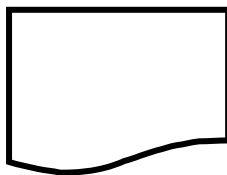
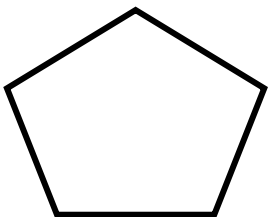
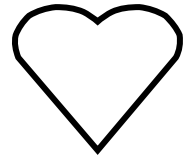
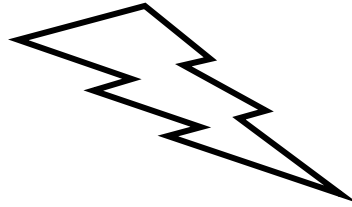
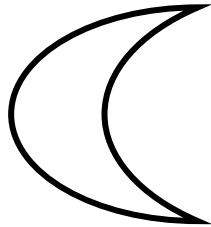
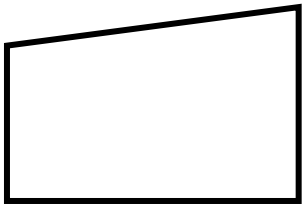
with straight sides parallel.



Exercise

1

Colour the Polygons only :



Lessons 34 - 37

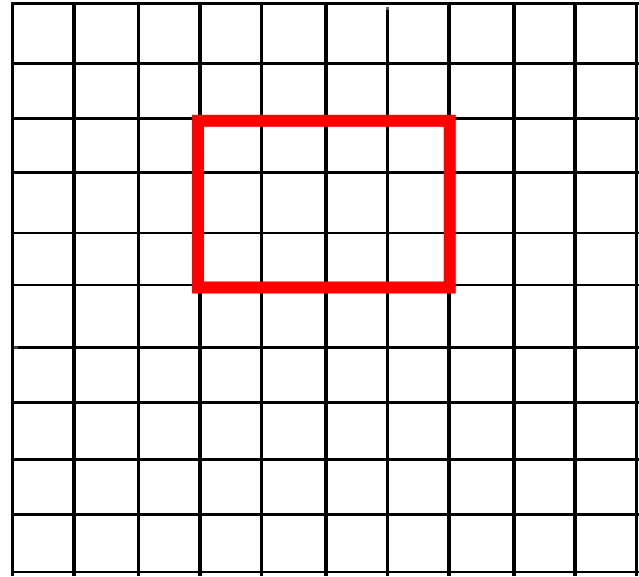


Area :

is the quantity expresses the extent of a shape.

- If we count the small squares you will find 12 of them.

$$3 \text{ rows} \times 4 \text{ columns} = 12$$



$$\text{Area} = \text{rows} \times \text{columns}$$

$$\text{Area} = \text{width} \times \text{length}$$

Example : Omar wants to plant tomatoes. tomato need 1 square unit of space.

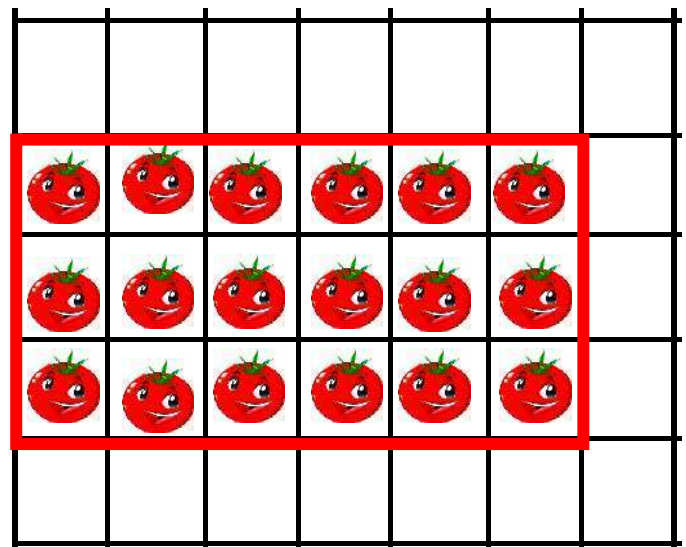
What can he do ?



Answer :

Create a garden with 3 rows and 5 columns.

$$\begin{aligned} \text{Area} &= \text{rows} \times \text{columns} \\ &= 3 \times 5 = 15 \text{ square units} \end{aligned}$$



Exercise

1

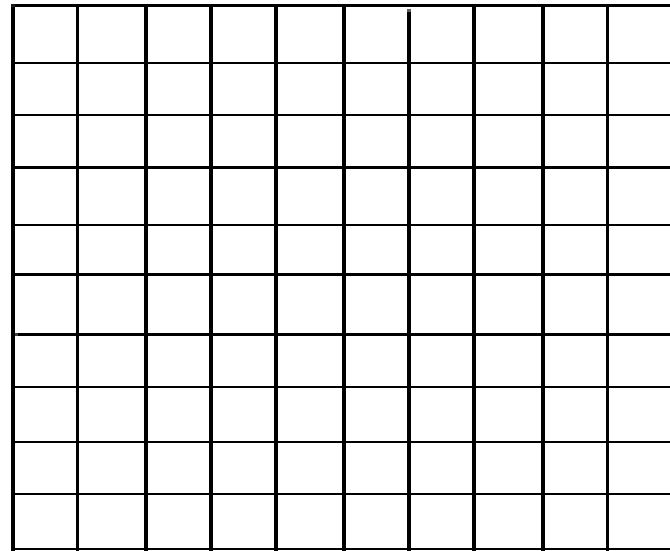
Read, think and answer :

1- Hala wants to plant apples. Apples need 1 square unit of space. What can she do ?



Create a garden with 5 rows and 5 columns.

Area = X
= tree

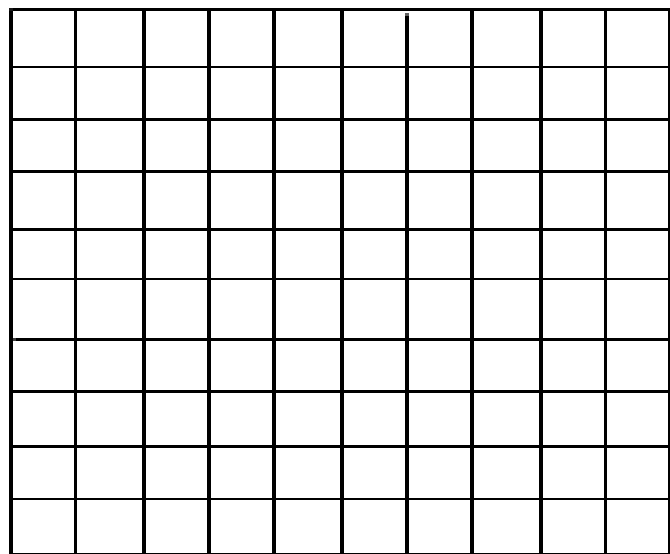


2- Sara wants to plant watermelons. Watermelons need 1 square unit of space. What can she do ?



Create a garden with 4 rows and 4 columns.

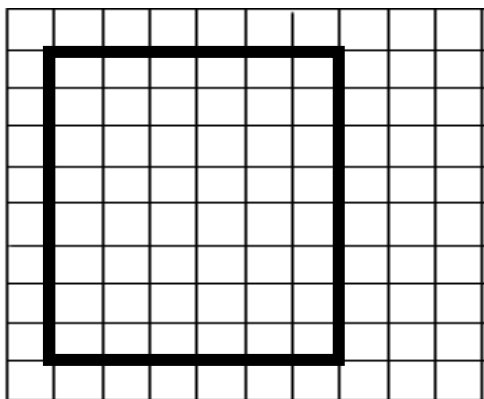
Area = X
= tree



Exercise

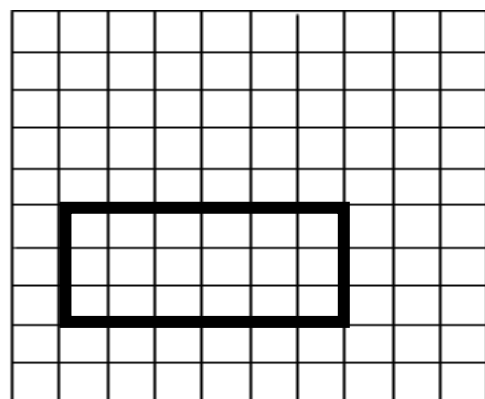
2

Find the total area using 2 different ways :



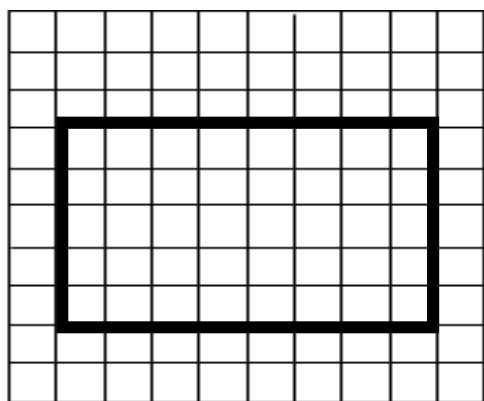
$$\text{Area} = 8 \times 6 = 48$$

$$\text{Area} = 8 + 8 + 8 + 8 + 8 + 8 = 48$$



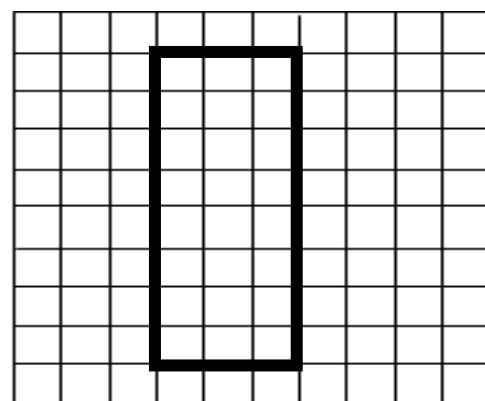
$$\text{Area} = \dots\dots\dots = \dots\dots$$

$$\text{Area} = \dots\dots\dots = \dots\dots$$



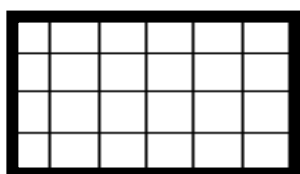
$$\text{Area} = \dots\dots\dots = \dots\dots$$

$$\text{Area} = \dots\dots\dots = \dots\dots$$



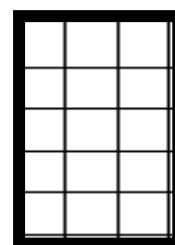
$$\text{Area} = \dots\dots\dots = \dots\dots$$

$$\text{Area} = \dots\dots\dots = \dots\dots$$



$$\text{Area} = \dots\dots\dots = \dots\dots$$

$$\text{Area} = \dots\dots\dots = \dots\dots$$



$$\text{Area} = \dots\dots\dots = \dots\dots$$

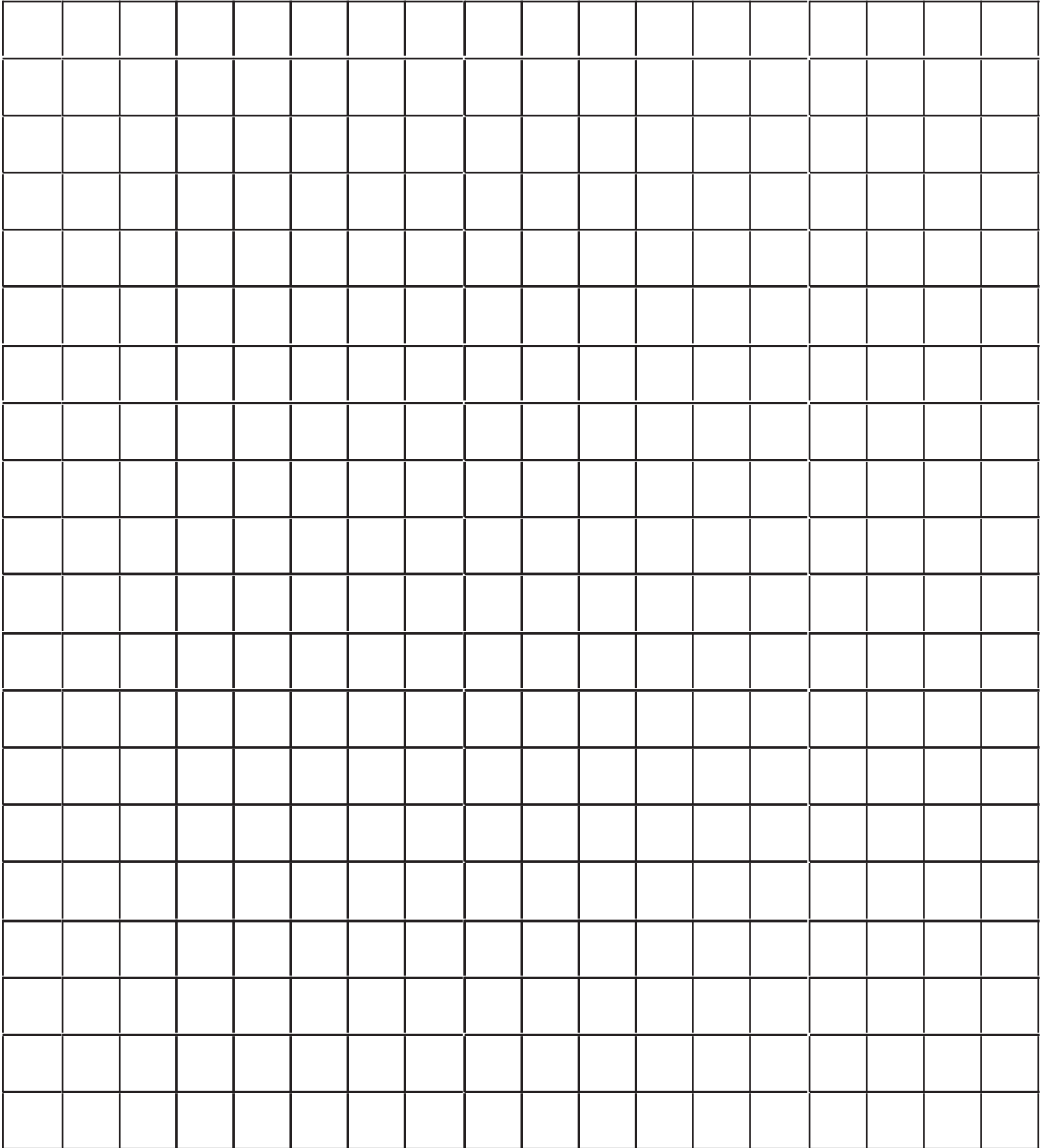
$$\text{Area} = \dots\dots\dots = \dots\dots$$

Exercise

3

Look and draw :

On the grid below, draw and label as many rectangles as you can with an area of 18 square units.



Exercise

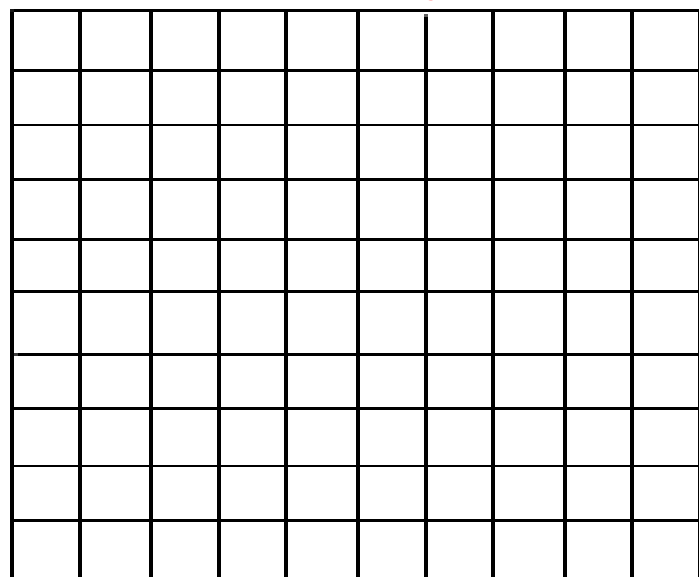
4

Look, read and draw :

On the grid below, draw 3 x 4 and 2 x 5 arrays ?

Which one is the greatest? Why ?

.....
.....
.....
.....
.....



Exercise

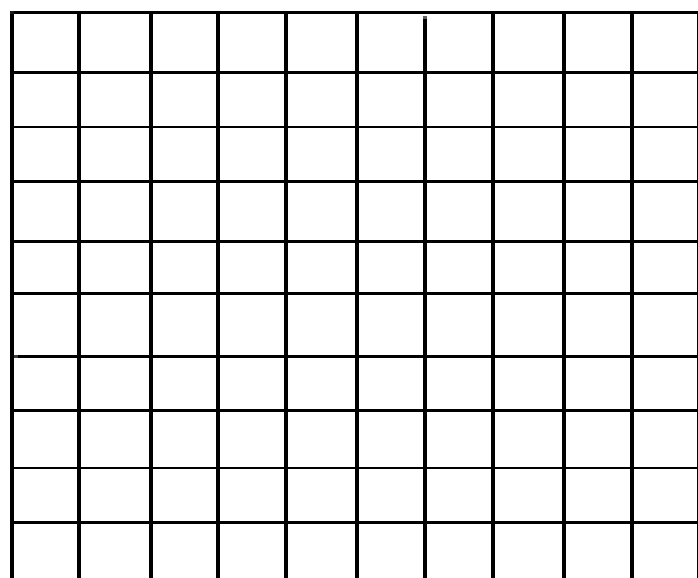
5

Look, read and draw :

On the grid below, draw 4 x 4 and 2 x 6 arrays ?

Which one is the greatest? Why ?

.....
.....
.....
.....
.....

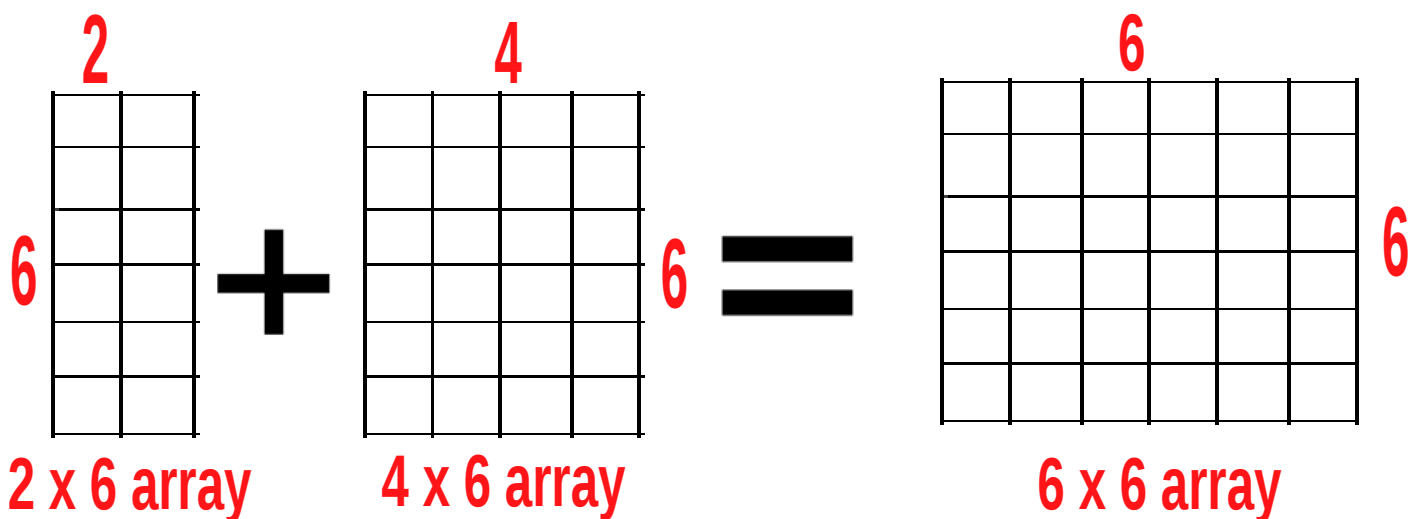
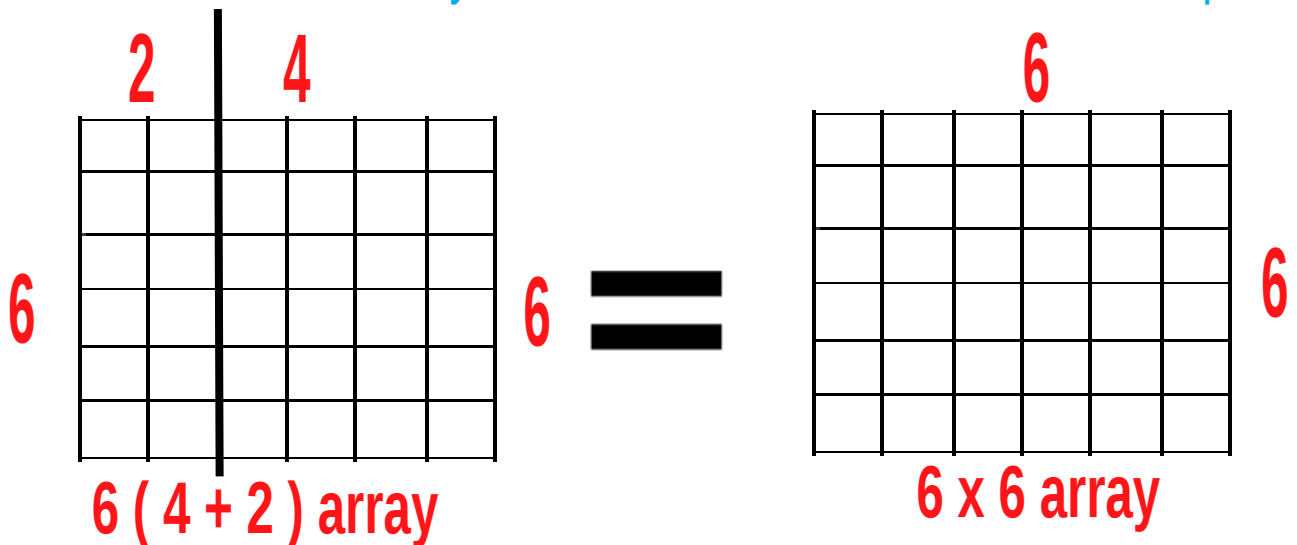


Lessons 38 - 40



Distributive property of multiplication

We can divide the array to find the area as in the example :



$$9 \times 6 = 6 \times (4 + 2) = 6 \times 4 + 6 \times 2 = 24 + 12 = 36$$

According to the distributive property, multiplying the sum of two or more addends by a number will give the same result as multiplying each addend individually by the number and then adding the products together.

Exercise

1

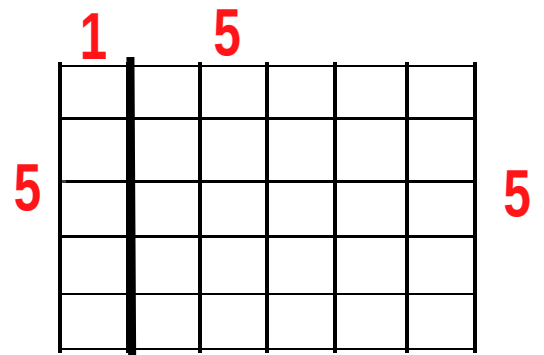
Answer using distributive property of multiplication :

$$5 \times 5 = 25$$

$$1 \times 5 = 5$$

$$25 + 5 = 30$$

=



Different way :

$$5 \times 6 = 6 \times 5 + 5 \times 1 = 25 + 5 = 30$$

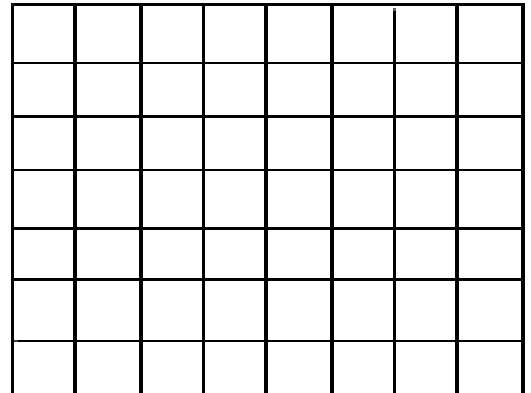
$$\square \times \square = \square$$

$$\square \times \square = \square$$

$$\square + \square = \square$$

=

$$7 \times 8 = \square$$



$$7 \times 8 = 7 \times (\dots + \dots) = (7 \times \dots) + (7 \times \dots)$$

$$= \dots + \dots = \dots$$

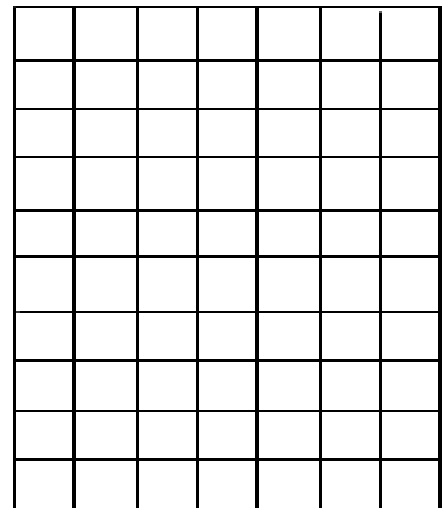
$$\square \times \square = \square$$

$$\square \times \square = \square$$

$$\square + \square = \square$$

=

$$7 \times 10 = \square$$



$$7 \times 10 = 7 \times (\dots + \dots) = (7 \times \dots) + (7 \times \dots)$$

$$= \dots + \dots = \dots$$

Exercise

2

Choose the correct answer :

1-) $(5 \times 5) + (5 \times 4) = \dots\dots\dots$ (5×7 - 5×8 - 5×9)

2-) $(4 \times 5) + (3 \times 4) = \dots\dots\dots$ (4×8 - 4×4 - 4×3)

3-) $(3 \times 3) + (3 \times 3) = \dots\dots\dots$ (6×3 - 3×5 - 7×3)

4-) $(3 \times 7) + (7 \times 4) = \dots\dots\dots$ (7×4 - 7×7 - 7×3)

5-) $(8 \times 2) + (8 \times 8) = \dots\dots\dots$ (8×4 - 8×8 - 8×10)

6-) $(8 \times 5) + 2 = \dots\dots\dots$ (17 - 18 - 13)

Exercise

3

Answer using distributive property of multiplication :

$$5 \times 9 = 5 \times (\dots\dots + 5)$$

$$= 5 \times 5 + 5 \times \dots\dots\dots$$

$$= \dots\dots + \dots\dots = \dots\dots$$

$$8 \times 6 = 8 \times (\dots\dots + 3)$$

$$= 8 \times \dots\dots + \dots\dots \times 3$$

$$= \dots\dots + \dots\dots = \dots\dots$$

$$8 \times 7 = 7 \times (\dots\dots + 4)$$

$$= 7 \times \dots\dots + \dots\dots \times \dots\dots$$

$$= \dots\dots + \dots\dots = \dots\dots$$

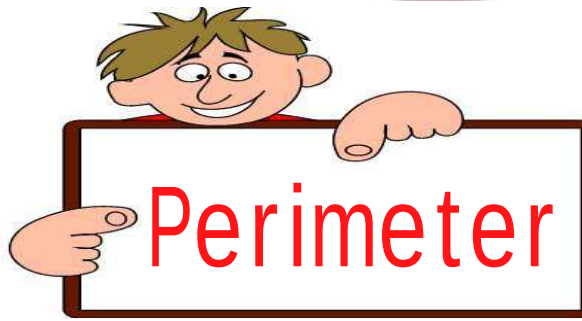
$$9 \times 12 = 9 \times (\dots\dots + \dots\dots)$$

$$= \dots\dots \times \dots\dots + \dots\dots \times \dots\dots$$

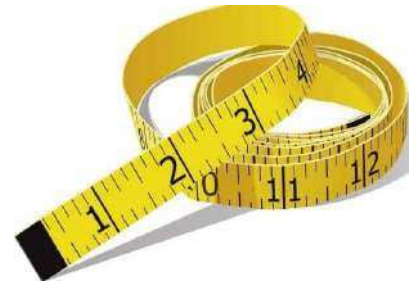
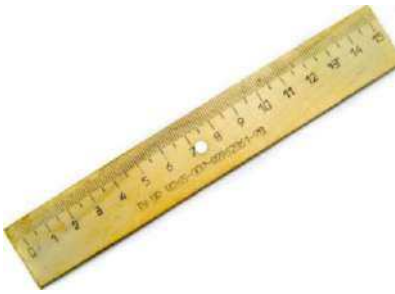
$$= \dots\dots + \dots\dots = \dots\dots$$

Chapter 5

Lessons 41 - 43



perimeter measurement tools :



Remember :

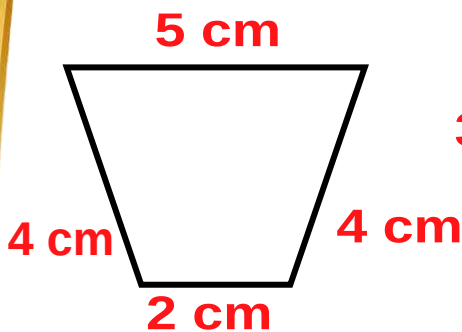
$$1 \text{ Meter} = 100 \text{ cm} = 1000 \text{ mm} \quad - \quad 1 \text{ cm} = 10 \text{ mm}$$

Perimeter :

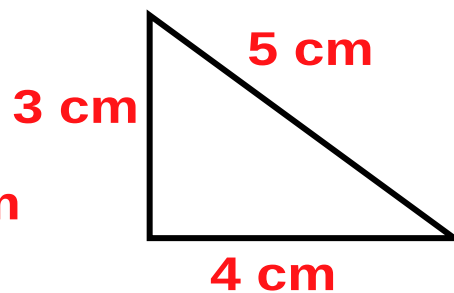
It is a path or boundary that surrounds a two-dimensional shape.

Perimeter = sum of the side lengths of the shape.

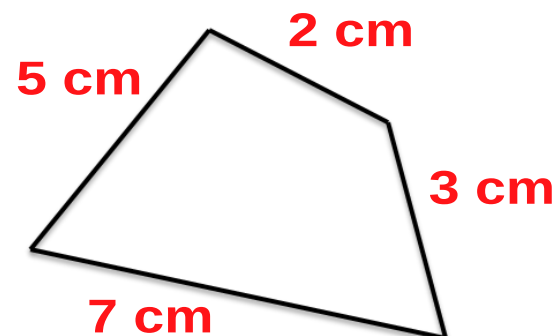
Example :



$$\begin{aligned} \text{Perimeter} &= \\ 2 + 4 + 4 + 5 &= 15 \text{ cm} \end{aligned}$$



$$\begin{aligned} \text{Perimeter} &= \\ 3 + 4 + 5 &= 12 \text{ cm} \end{aligned}$$



$$\begin{aligned} \text{Perimeter} &= \\ 2 + 3 + 7 + 5 &= 17 \text{ cm} \end{aligned}$$

The perimeter of regular polygons and square and rectangle :

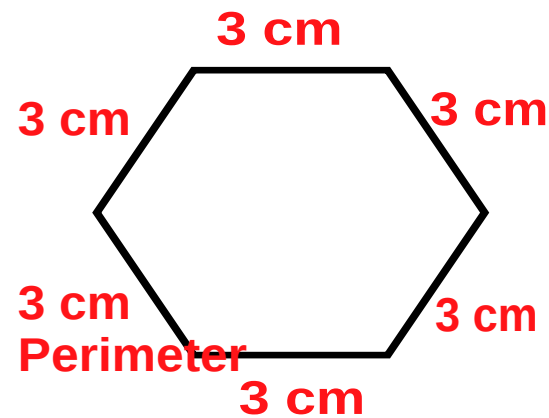
- The perimeter of regular polygons :
- There are 2 different ways :

First way :

$$\text{Perimeter} = 3 + 3 + 3 + 3 + 3 + 3 = 18 \text{ cm}$$

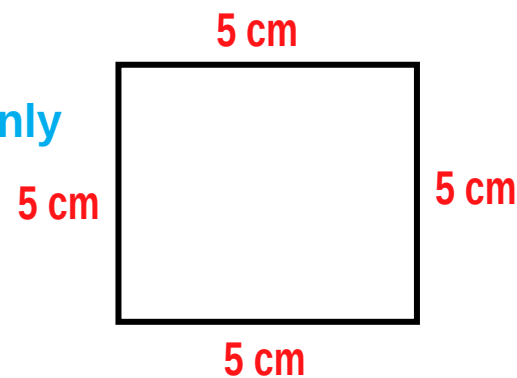
Second way :

$$\text{Perimeter} = 3 \times 6 = 18 \text{ cm}$$



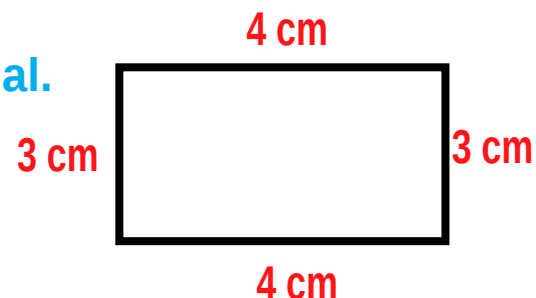
Perimeter of regular polygons = number of sides x length of 1 side

- The perimeter of square :
Since all sides of square are equal, we only need 1 side to find its perimeter.
- The perimeter of square =
 $4 \times (\text{length of any one side})$
 $= 4 \times 5 = 20 \text{ cm}.$



Perimeter of square = $4 \times (\text{length of any one side})$.

- The perimeter of rectangle :
Rectangle has 2 pairs of parallel sides equal.
The perimeter of rectangle is the sum of all sides of a rectangle.



- The perimeter of rectangle =
 $2 \times (\text{length} + \text{width})$
 $= 2 \times (4 + 3) = 14 \text{ cm}$

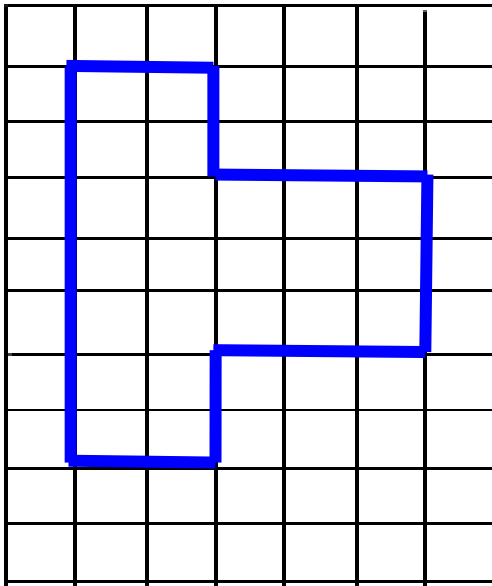
Perimeter of rectangle = $2 \times (\text{length} + \text{width})$.

Exercises

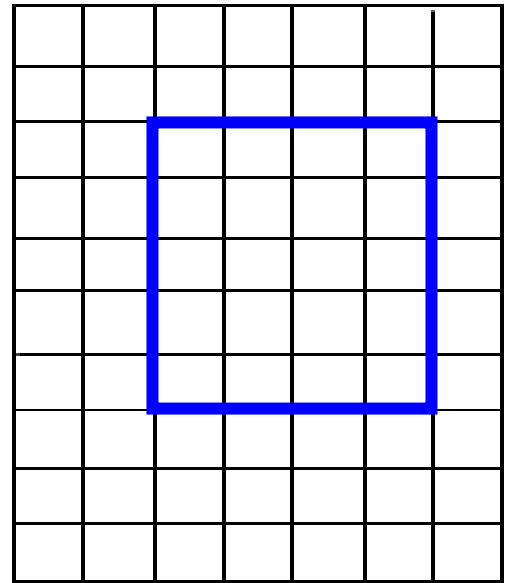
Exercise

1

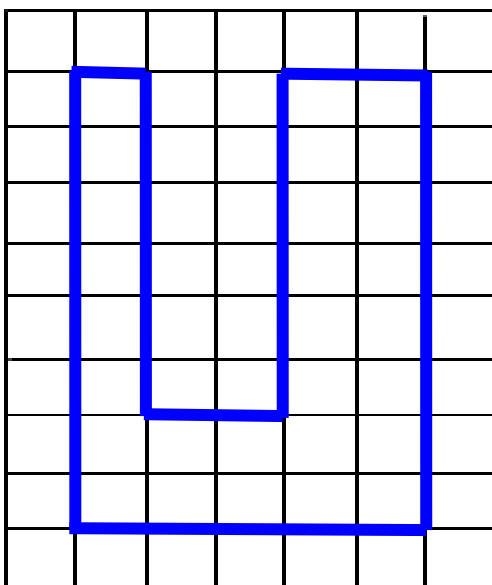
Find the total perimeter :



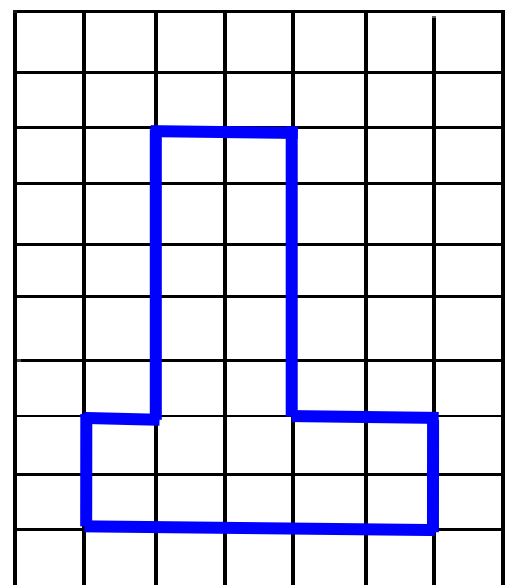
Perimeter = =



Perimeter = =



Perimeter = =

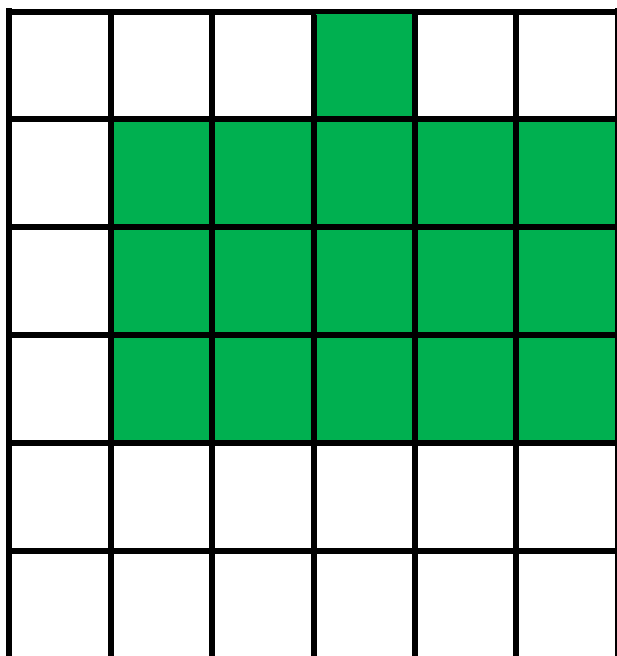


Perimeter = =

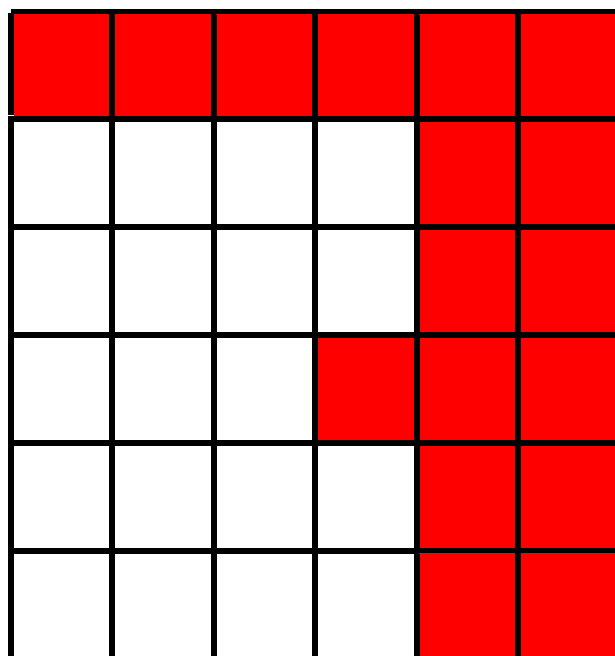
Exercise

2

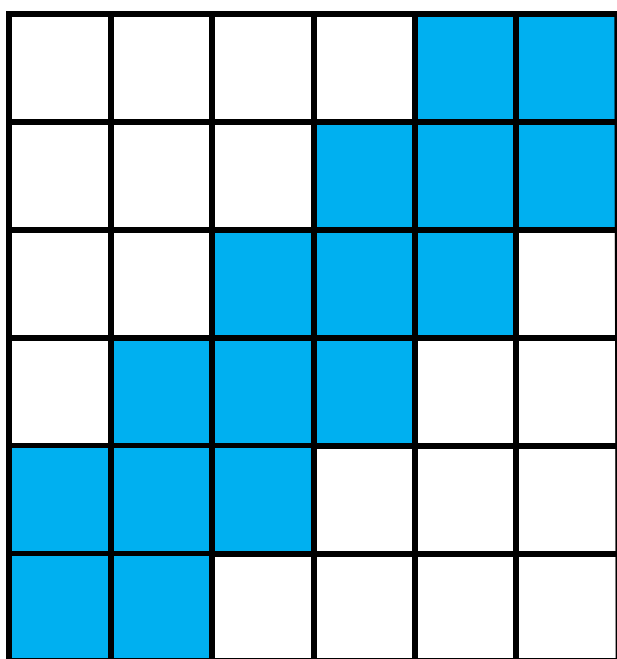
Find the total perimeter :



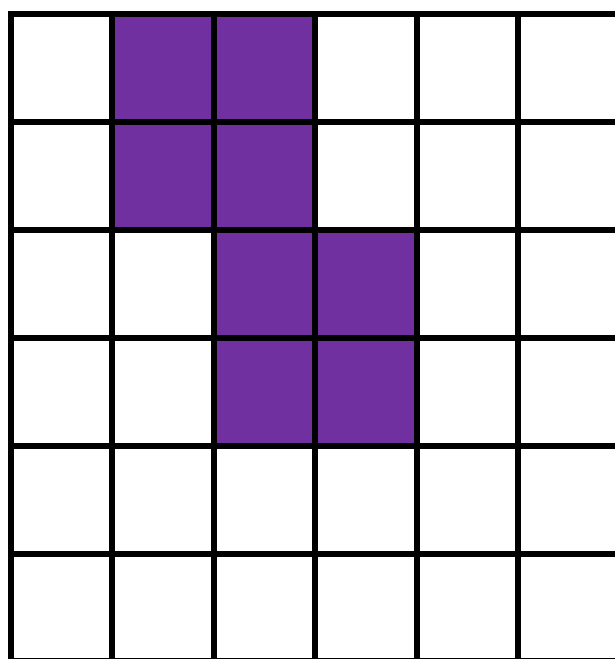
Perimeter = =



Perimeter = =



Perimeter = =

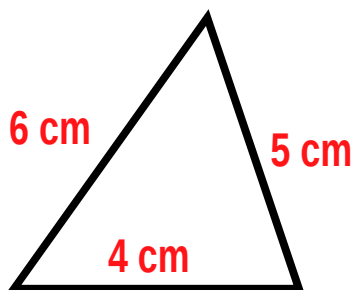


Perimeter = =

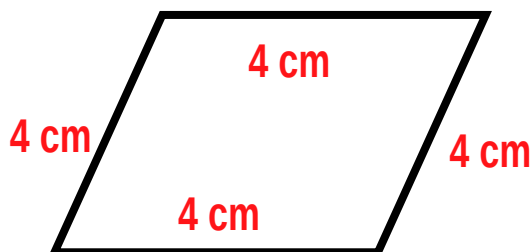
Exercise

3

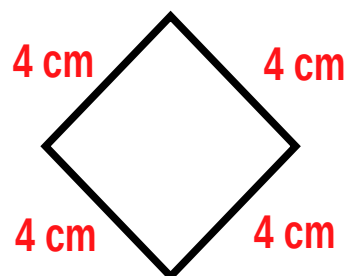
Find the total perimeter :



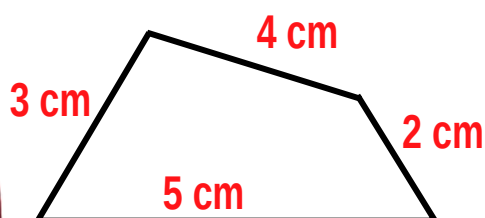
Perimeter = =



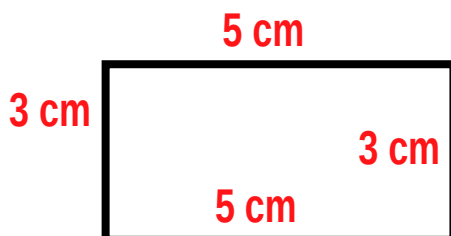
Perimeter = =



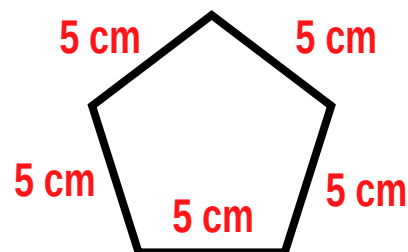
Perimeter = =



Perimeter = =



Perimeter = =

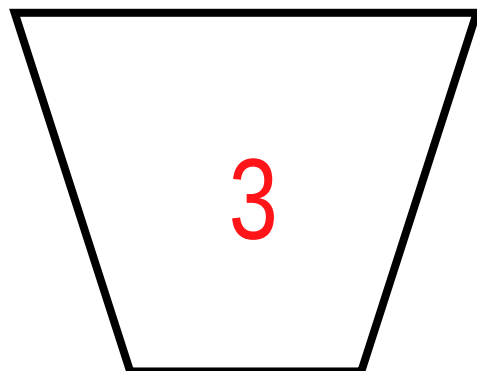
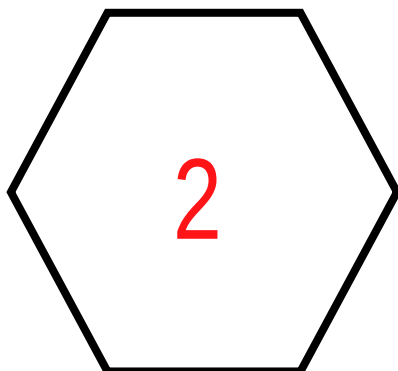
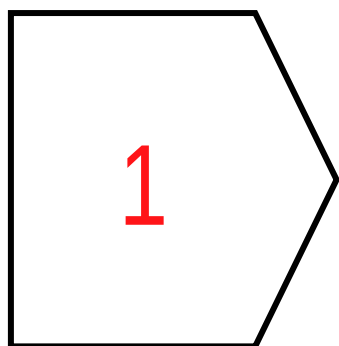


Perimeter = =

Exercise

3

Use the ruler to measure then find the total perimeter :



1- Perimeter = =

3- Perimeter = =

2- Perimeter = =

Lessons 44 - 46

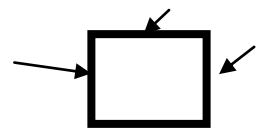


Perimeter is the length or distance around a shape or space. To find the perimeter, simply add the length of all the sides. Perimeter can be measured using ruler. Area is the space taken up by a flat shape. Area is measured in square units.



The green part is the area.

Exercises

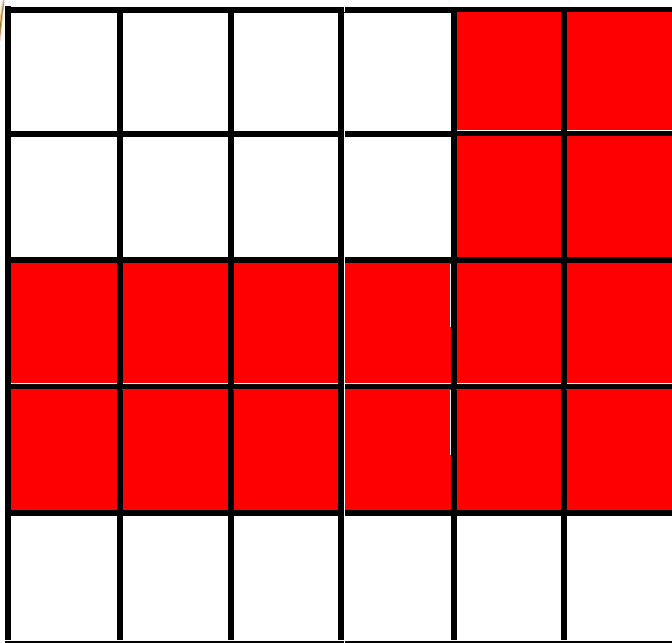


The arrows refer to the perimeter.

Exercise

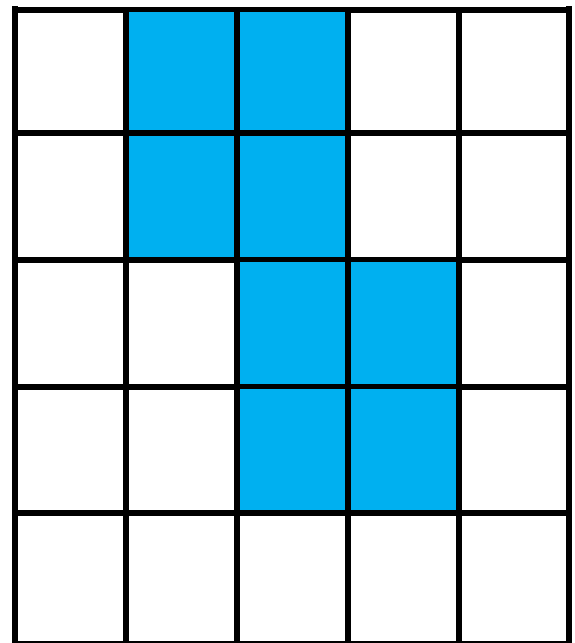
1

Find the total perimeter and area :



Perimeter = =

Area = =



Perimeter = =

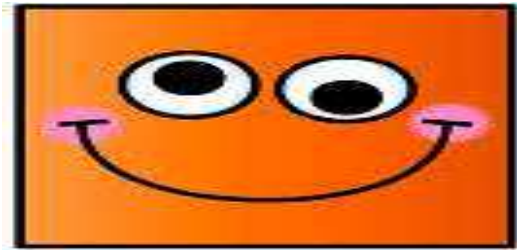
Area = =

Exercise

2

Find the total perimeter and area :

1- Measure and record the length of each side then find the total perimeter and area :



Perimeter = =

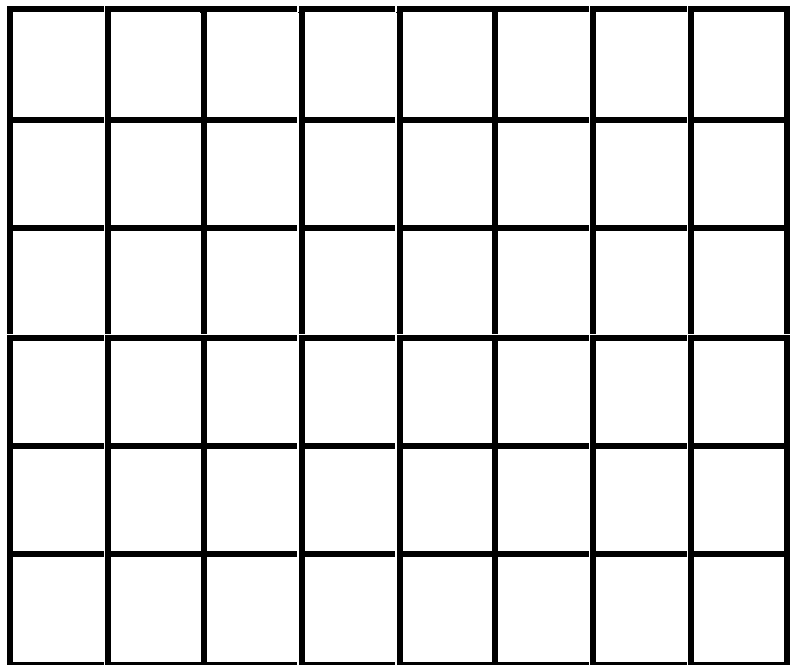
Area = =



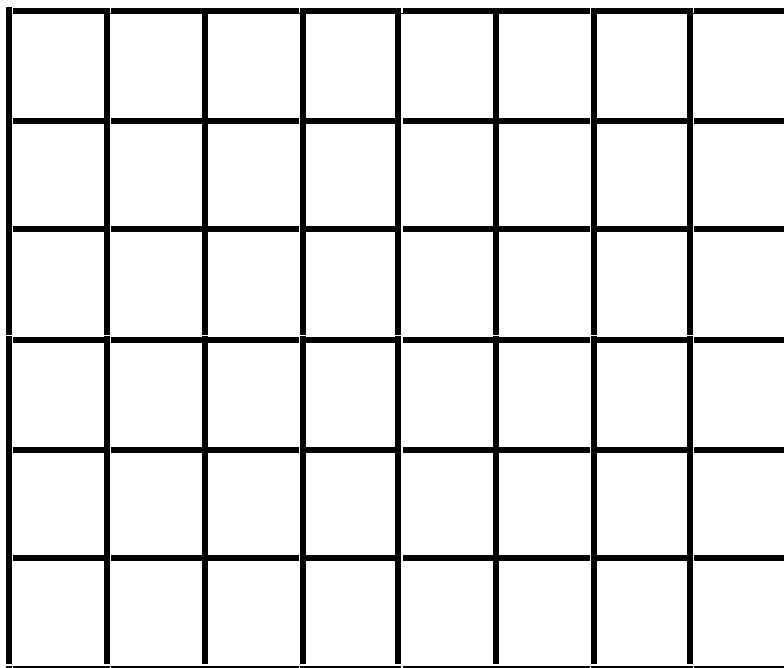
Perimeter = =

Area = =

2- In the grid below. Draw a square that its perimeter is 14 cm.
The small square = 1 cm. Then find the area.



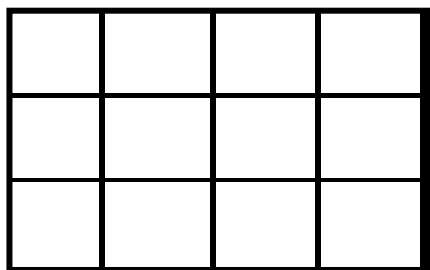
3- In the grid below. Draw a rectangle of . The tall side = 5 cm and the short side = 3 cm. the small square = 1 cm. Then find the area and the perimeter.



Exercise

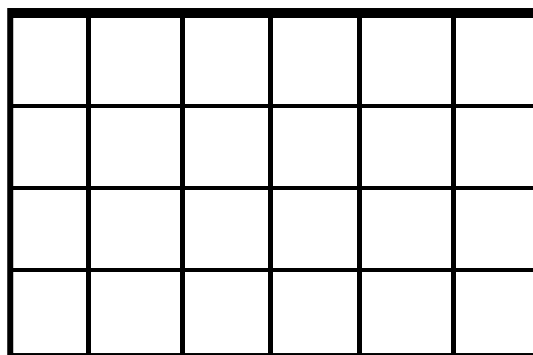
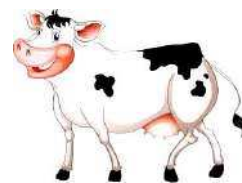
3

Find the total perimeter and area :



Perimeter = =

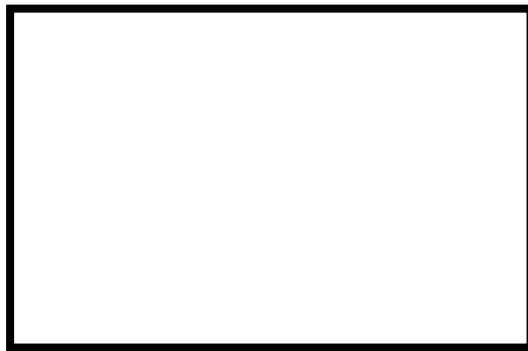
Area = =



Perimeter = =

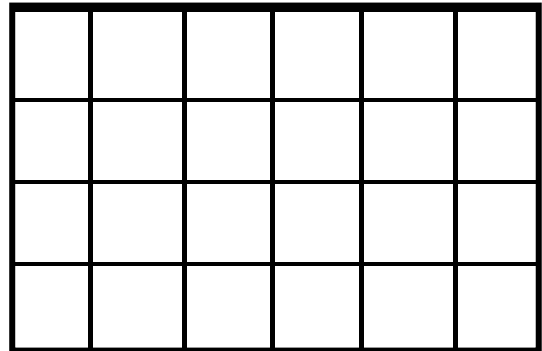
Area = =

Strategies to find the rectangle area



6 cm

5 cm



6 cm

5 cm

1- Array strategy :

Rectangle area = number of rows x number of columns.
 $= 5 \times 6 = 30$ square units

2- square counting strategy :

Rectangle area = number of squares = 30 square units.

3- Rectangle area strategy (no squares) :

Rectangle area = Length x width = $5 \times 6 = 30$ square units.

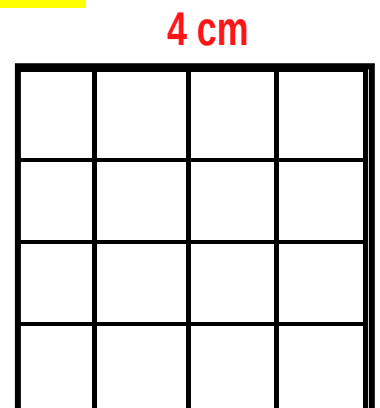
Strategies to find the square area

1- square counting strategy :

Square area = number of squares = 16 square units.

2- Square area strategy :

Square area = side x side = $4 \times 4 = 16$ square units.



4 cm

4 cm

Exercise

1

Find the total perimeter and area :

1- Perimeter = + ... + + = m

Perimeter = $2 \times (\dots + \dots) = \dots \text{ m}$

Area = Length x width = X = square meter

3 m

5 m

2- Perimeter = + ... + + = m

Perimeter = $2 \times (\dots + \dots) = \dots \text{ m}$

Area = Length x width = X = square meter

5 m

7 m

3- Perimeter = + ... + + = m

Perimeter = $4 \times \dots = \dots \text{ m}$

Area = side x side = X = square meter

3 m

3 m

4- Perimeter = + ... + + = m

Perimeter = $4 \times \dots = \dots \text{ m}$

Area = side x side = X = square meter

6 m

6 m

Lessons 47 - 49



Solving real life problems (word exercises)

- 1) Shaimaa is sewing a border on a square baby blanket. The length of the blanket is 45 centimeters and the width is 25 centimeters. How long will the border be?

Answer :

The border of the blanket is the perimeter.

$$= \dots + \dots + \dots + \dots = \dots \text{ cm}$$



- 2) Omnia wants to put a wooden trim around her window. The window is 4 meters tall and 1 meter wide. How much wood does she need for the trim?

Answer :

The wooden trim is the perimeter.

$$= \dots + \dots + \dots + \dots = \dots \text{ meter.}$$



3) A rug is 3 meters long and 2 meters wide.

What is the area of the rug?

Answer :

Area = X

= square meter.



6) A farmer is building a fence around his garden.

If the garden is 8 meters long and 3 meters wide, how much fencing does he need to buy?
And find the area ?

Answer :

perimeter = + + +

= meter.

Area = X

= square meter.



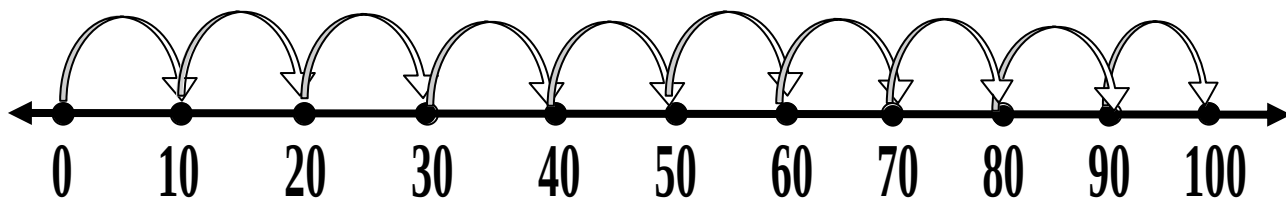
Lesson 50



- The 120 Chart shows multiples of 10 :

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	6	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

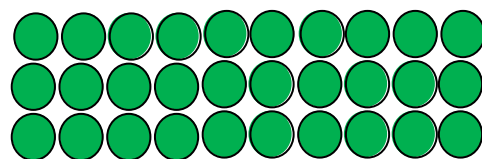
To get a multiple of a number, we add the same number to itself. For example, multiple of **10** is $10 + 10 = 100$. Multiples of 10 are 20, 30, 40,



● Multiples of 10 using arrays :

Number of rows =

Number of columns =



Total = number of rows x number of columns

Total = 3 x 10 = 30

Exercise

Look and complete the table :

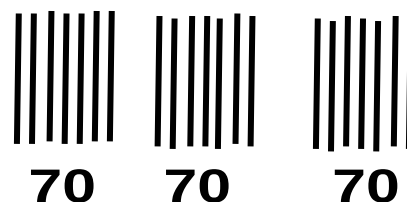
0	1	2	3	4	5	6	7	8	9
0				40				80	

10 x

● Use any strategy to find 3 x 70 :

- Repeated addition strategy :

$$3 \times 70 = 70 + 70 + 70 = 210$$



70

70

70

- Multiplication strategy :

$$3 \times 70 = 3 \times 7 \times 10 = 21 \times 10 = 210$$

Exercise

1

Complete as in the example :

1-) $10 \times 5 = 5 \times 10 = 50$

2-) $\dots \times 5 = 8 \times \dots = \dots$

3-) $\dots \times 4 = 5 \times \dots = \dots$

4-) $\dots \times 7 = 3 \times \dots = \dots$

5-) $\dots \times 1 = 9 \times \dots = \dots$

6-) $\dots \times 3 = 3 \times \dots = \dots$

7-) $\dots \times 10 = 5 \times \dots = \dots$

8-) $\dots \times 7 = 10 \times \dots = \dots$

9-) $\dots \times 1 = 10 \times \dots = \dots$

10-) $\dots \times 3 = 10 \times \dots = \dots$

11-) $\dots \times 100 = 9 \times \dots = \dots$

12-) $\dots \times 300 = 3 \times \dots = \dots$

13-) $\dots \times 100 = 5 \times \dots = \dots$

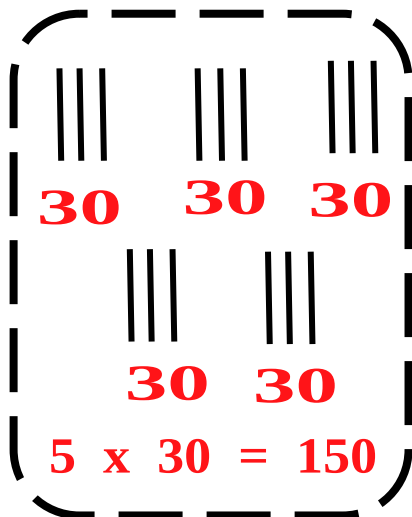
14-) $\dots \times 70 = 10 \times \dots = \dots$

Exercise

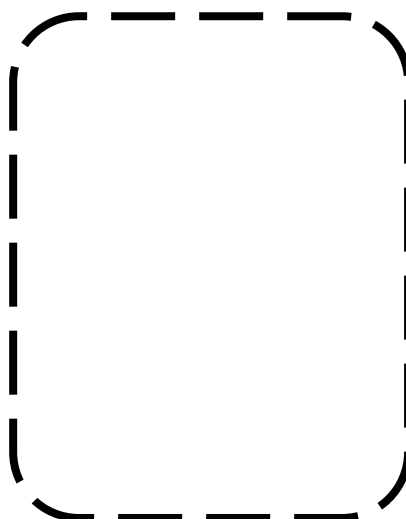
1

Draw lines to represent the groups of 10 :

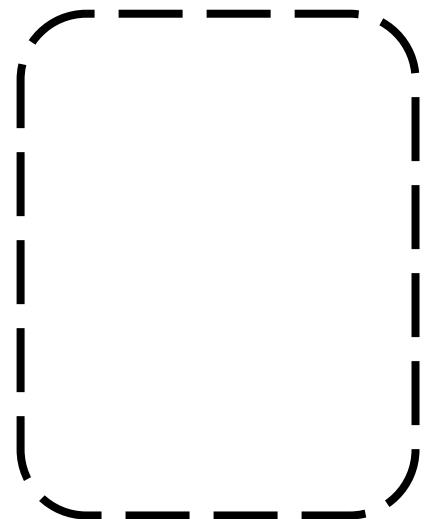
5×30



3×60



70×2



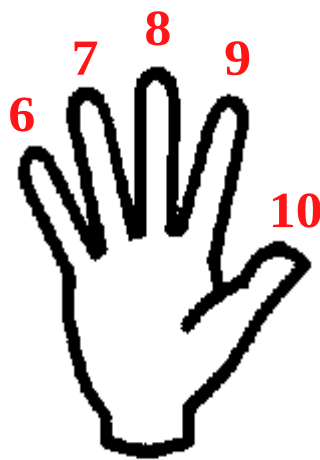
Chapter 6

Lessons 51 - 53

Finger Trick Strategy



$$6 \times 9 = 54$$



$$4 \times 9 = 36$$

The fingers to the left as the tens and the fingers to the right are the ones.

Exercise

Look and complete the table :

0	1	2	3	4	5	6	7	8	9
0	9	18	27	36	45	54	63	72	81

9 ×

Exercise

Look and learn :

$9 \times 0 = (0 \times 10) - 0 = 0$	$9 \times 1 = (1 \times 10) - 1 = 9$
$9 \times 2 = (2 \times 10) - 2 = 18$	$9 \times 3 = (3 \times 10) - 3 = 27$
$9 \times 4 = (4 \times 10) - 4 = 36$	$9 \times 5 = (5 \times 10) - 5 = 45$
$9 \times 6 = (6 \times 10) - 6 = 54$	$9 \times 7 = (7 \times 10) - 7 = 63$
$9 \times 8 = (8 \times 10) - 8 = 72$	$9 \times 9 = (9 \times 10) - 9 = 81$

Exercise

1

Complete as in the example :

1-) 9×0	$= (0 \times 10) - 0$	$= 0$
2-) $9 \times \dots\dots$	$= (0 \times 10) - \dots\dots\dots$	$= 27$
3-) 9×2	$= (0 \times 10) - \dots\dots\dots$	$= \dots\dots\dots$
4-) $9 \times \dots\dots$	$= (0 \times 10) - \dots\dots\dots$	$= 81$
5-) 9×4	$= (0 \times 10) - \dots\dots\dots$	$= \dots\dots\dots$
6-) $9 \times \dots\dots$	$= (0 \times 10) - \dots\dots\dots$	$= 56$
7-) 9×8	$= (0 \times 10) - \dots\dots\dots$	$= \dots\dots\dots$

Exercise

2

Read, think and answer :

1) Mona had 35 pounds. She bought 3 books.

Each book = 9 pounds.

How much money Mona has now ?

She paid = x = pounds .

She has now = 35 - = pounds.



2) Tamer had 9545 pounds. He bought a car.

The car price is 8580 pounds.

How much money Tamer has now ?

He paid = x = pounds .

he has now = - = pounds.



3) Amir's family is saving to buy a new TV. The TV costs 4,590 pounds on sale. They have saved 2,410 pounds so far. How much more money do they need before they can buy the TV?

.....

.....

.....

5) Noha is from Aswan and she wants to travel to Giza. She saved 300 pounds. Travelling to Giza costs 750 pounds. How much more money does she need before she can travel to Giza ?

.....

.....

.....

.....

Lessons 54 - 55



Exercise

1

Read, think and answer :

1) This number has 5 Thousands, 7 Hundreds, 6 Tens, and 4 Ones. What number is it?

Answer :

The number is : 5764

2) This number has 5 Thousands, 5 Hundreds, 7 Tens, and 3 Ones. What number is it?

The number is :

3) This number has 8 Thousands, 7 Hundreds, 3 Tens, and 9 Ones. What number is it?

The number is :

4) Write 9,458 in expanded form.

=

5) Write 3,509 in expanded form.

=

6) Write the following number in standard form. Pay attention to the place value.

$50,000 + 40 + 300 + 2$

=

7) Write the following number in standard form. Pay attention to the place value.

$6,000 + 50,000 + 40 + 300 + 2$

=

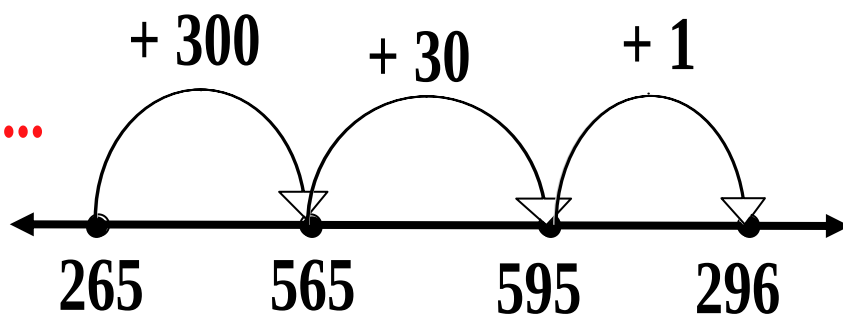
Exercise

2

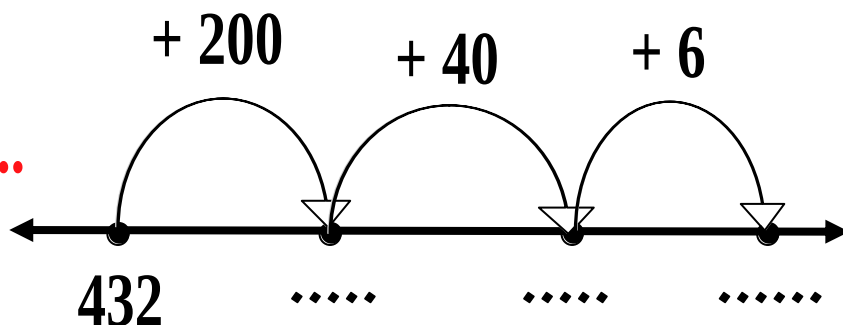
Complete as in the example :

1-) $265 + 331 = \dots\dots$

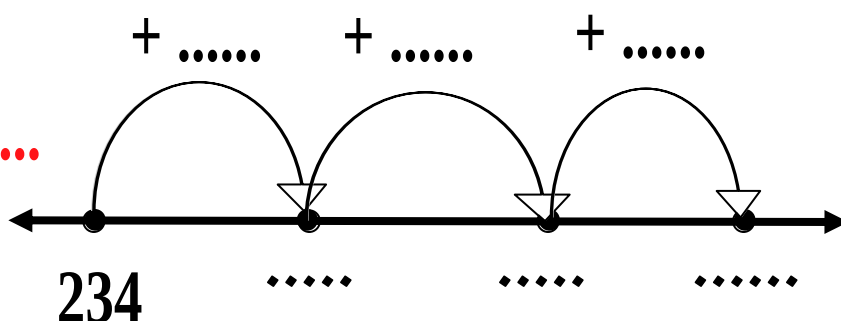
Answer = 596



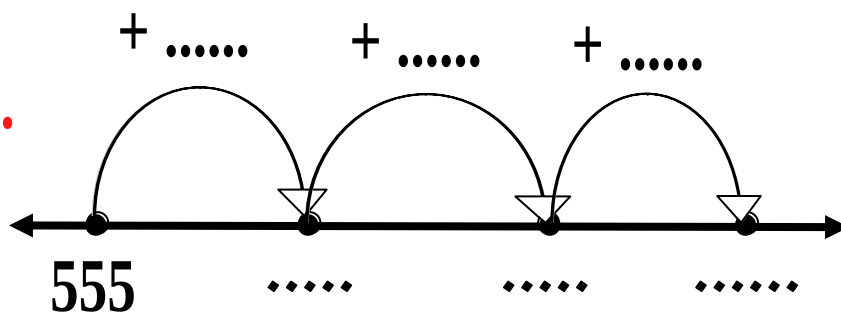
2-) $432 + 246 = \dots\dots$



3-) $234 + 111 = \dots\dots$



4-) $555 + 333 = \dots\dots$



Lessons 56 - 58



Remember : For 0, 1, 2, 3, or 4 we round down.
For 5, 6, 7, 8, or 9 we round up.

Rounding to the nearest 10 :

- 1- Underline the one's place.
- 2- If it is less than 5, round down.
- 3- If it is 5 or more, round up

Example (1) : Round 43 to the nearest ten.

Answer : the 3 is less than 5, then we will round down and the final answer is 40.

Example (2) : Round 89 to the nearest ten.

Answer : the 9 is more than 5, then we will round up and the final answer is 90

Rounding to the nearest 100 :

- 1- Underline the ten's place.
- 2- If it is less than 5, round down.
- 3- If it is 5 or more, round up

Example (1) : Round 441 to the nearest ten.

Answer : the 4 is less than 5, then we will round down and the final answer is 400.

Example (2) : Round 178 to the nearest ten.

Answer : the 7 is more than 5, then we will round up and the final answer is 200

Exercise

1

Read and round :

1-) 89 =

2-) 43 =

3-) 98 =

4-) 34 =

5-) 546 =

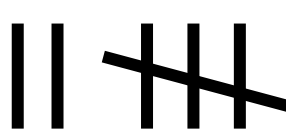
6-) 6521 =

7-) 645 =

8-) 1526 =

Example (1) : Subtract 572 - 350 =

Answer = 222

Hundreds	Tens	Ones
		

Exercise

2

Read and subtract :

Hundreds	Tens	Ones
5 2	7 1	8 1

Hundreds	Tens	Ones
7 1	5 4	4 1

Hundreds	Tens	Ones
5 2	6 3	7 5

Hundreds	Tens	Ones
7 1	5 2	9 8

Hundreds	Tens	Ones
5 4	9 0	7 5

Hundreds	Tens	Ones
6 3	8 1	3 3

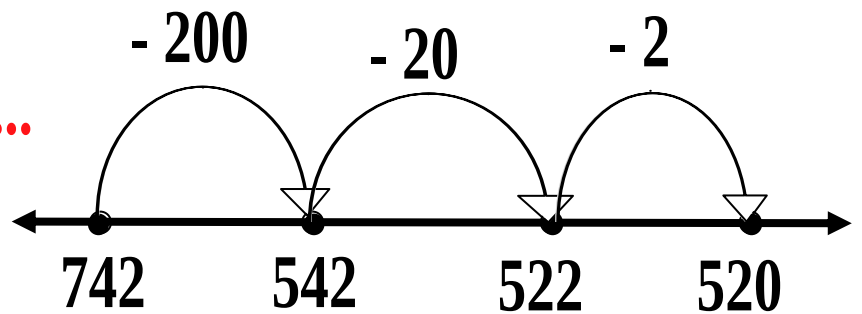
Exercise

5

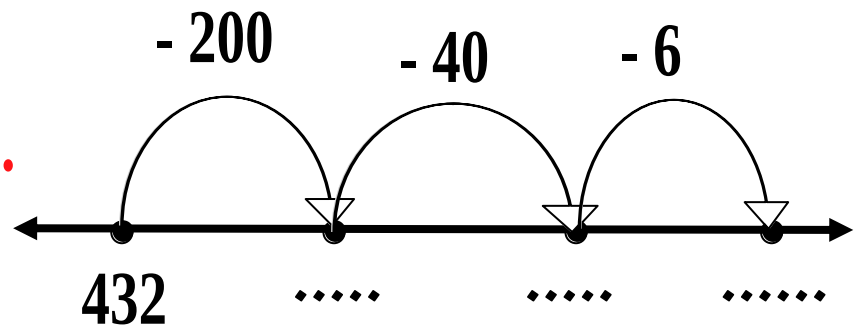
Complete as in the example :

1-) $742 - 222 = \dots\dots\dots$

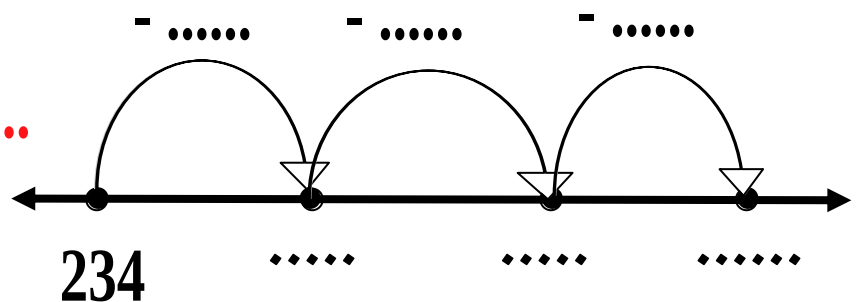
Answer = 520



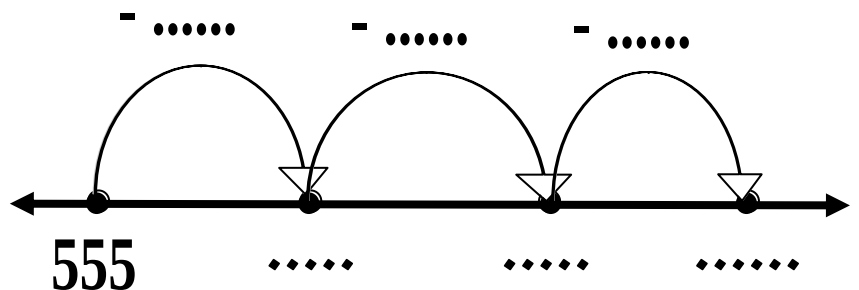
2-) $432 - 246 = \dots\dots\dots$



3-) $234 - 111 = \dots\dots\dots$



4-) $555 - 333 = \dots\dots\dots$



Exercise

6

Answer as in the example :

$$\begin{array}{r} 7878 \\ + 8787 \\ \hline 16665 \end{array}$$

$$\begin{array}{r} 6005 \\ + 3299 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 9876 \\ + 1234 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 5444 \\ + 9201 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 7812 \\ + 1287 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 6034 \\ + 3499 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 9856 \\ + 5634 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 5478 \\ + 7801 \\ \hline \dots\dots\dots \end{array}$$

Exercise

7

Answer as in the example :

$$\begin{array}{r} 9987 \\ - 7878 \\ \hline 2109 \end{array}$$

$$\begin{array}{r} 8025 \\ - 6005 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 9990 \\ - 9876 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 6548 \\ - 5444 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 9987 \\ - 1245 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 8025 \\ - 4526 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 9990 \\ - 8956 \\ \hline \dots\dots\dots \end{array}$$

$$\begin{array}{r} 6548 \\ - 6352 \\ \hline \dots\dots\dots \end{array}$$

Exercise

8

Read, think and answer :

1) Omar just moved to the city. He found an apartment to rent for 3,340 pounds per month. Electricity and gas will cost him 692 pounds per month.

A) How much money will it cost him each month to live?

Answer :
.....
.....

B) If Omar had 5,000 LE to spend each month, how much money does he have left after he pays for rent, electricity and gas?

Answer :
.....
.....

Lessons 59 - 60



Volume or capacity is the quantity of liquid can be put inside something.

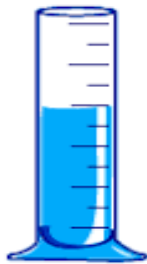
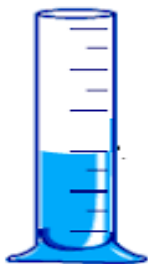
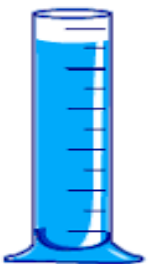
Such things are measured in liter (L).



Such things are measured in milliliters (ml).



milliliters measuring tools.



1 liter = 1000 milliliters

Exercise

1

Choose the correct measuring unit :



liter / milliliter



liter / milliliter



liter / milliliter



liter / milliliter



liter / milliliter



liter / milliliter

Exercise

2

Circle the minimum capacity :



Exercise

3

Read, think and complete as in the example :

- 1-) 5 liters = 5000 milliliters 2-) 2 liters = milliliters
3-) 9 liters = milliliters 4-) 3 liters = milliliters
5-) 4 liters = milliliters 6-) 8 liters = milliliters
7-) 7 liters = milliliters 8-) 1 liters = milliliters
9-) ... liters = 5000 milliliters 10-) ... liters = 9000 milliliters
11-) ... liters = 8000 milliliters 12-) ... liters = 3000 milliliters
13-) ... liters = 6000 milliliters 14-) ... liters = 70000 milliliters

Exercise

4

Arrange in ascending and descending order :

- 1-) 5 liters , 500 milliliters, 8 liters, 700 milliliters.
.....
.....
2-) 10 liters , 300 milliliters, 16 liters, 100 milliliters.
.....
.....

أ / أيمن جابر كامل

٠١٠٢٢٧٤٤٠٨٦

الفصل الدراسي الأول الصف الثالث الابتدائي

سعر المذكرة كاملة بدون علامة مائية أو اسم

فقط ٦٠ جنيها ترسل على فودافون كاش

علي الرقم ٠١٠٩١٥٤٠٩٤٠

تصلك pdf علي الواتس

موقع الدكتور محمد رزق التعليمي



امسح الباركود بالموبايل لتثبيت
التطبيق وتحميل كل الملازم مجاناً وبسرعة



حمل التطبيق الآن



كورسات ونتائج امتحانات



ملازم ثانوي



ملازم اعدادي



ملازم ابتدائي



موقع الدكتور محمد رزق
Dr. Mo. RIZK



D.M.RAZK

موقع الدكتور محمد رزق معلم الكيمياء التعليمي